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AFRICA

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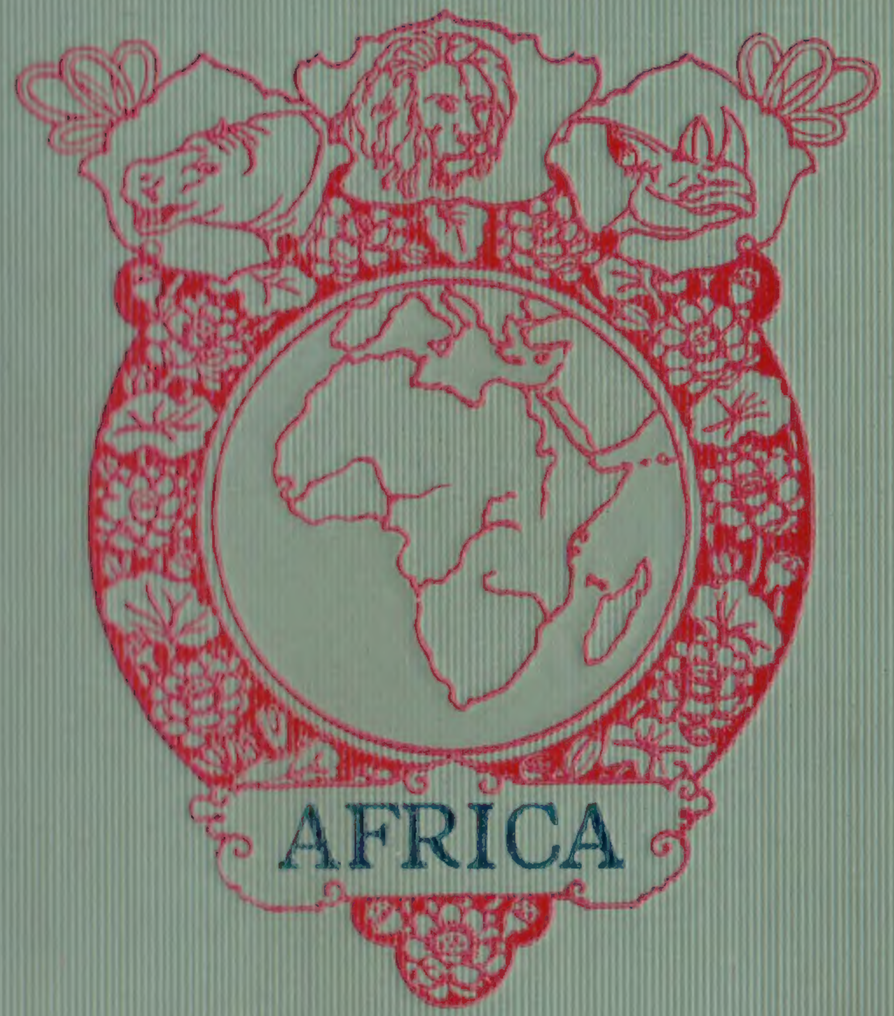
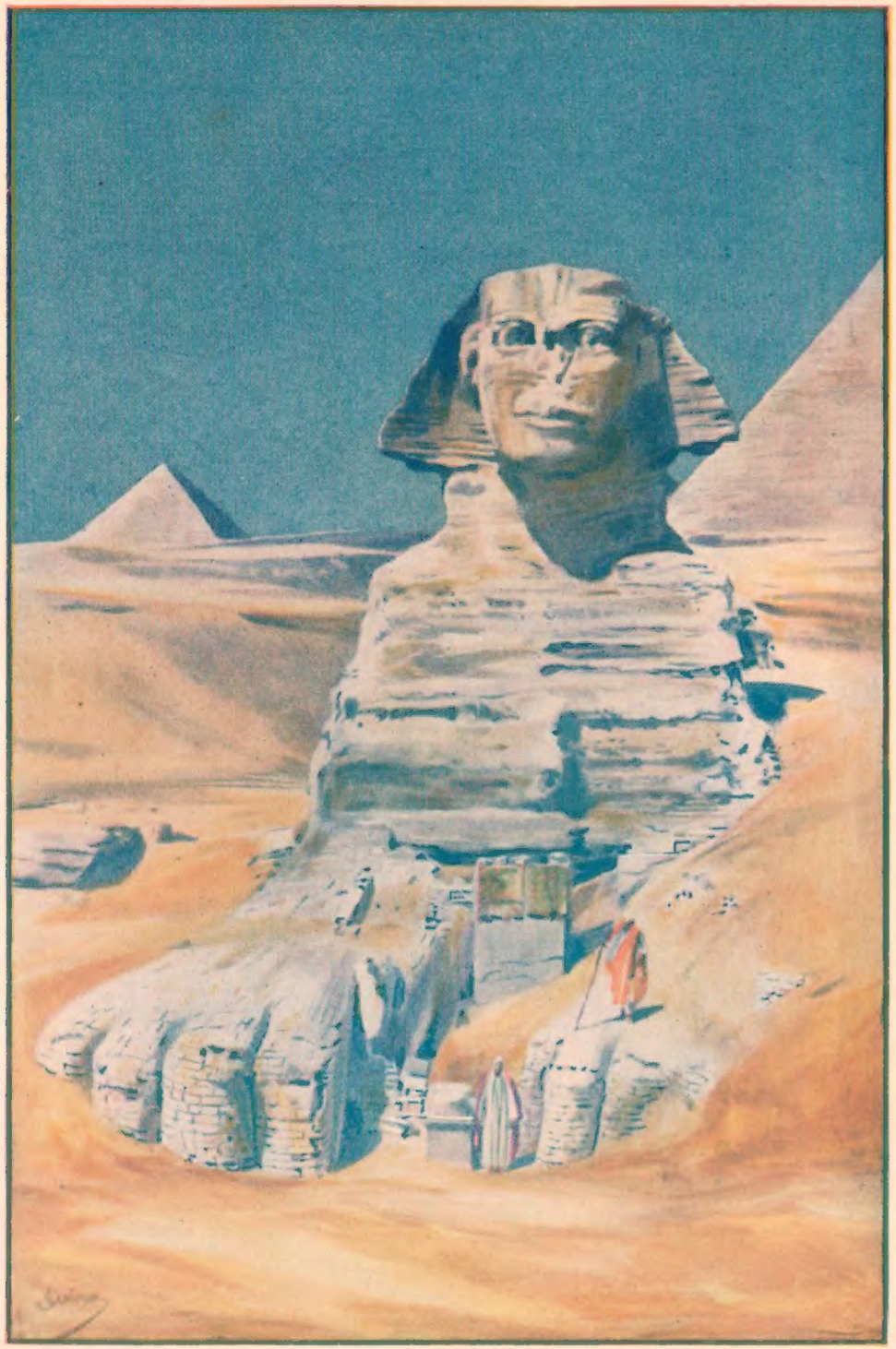


AFRICA



The Sphinx has stood on the desert sands of Egypt almost as far back as history extends. The giant head is as high as a three-story house.

CARPENTER'S NEW GEOGRAPHICAL READER

AFRICA

BY

FRANK G. CARPENTER, LITT.D., F.R.G.S.

AUTHOR OF

"AROUND THE WORLD WITH THE CHILDREN" AND

"READERS ON COMMERCE AND INDUSTRY"

AMERICAN BOOK COMPANY

NEW YORK CINCINNATI CHICAGO

BOSTON ATLANTA

BOOKS BY

FRANK G. CARPENTER

"Reading Carpenter is Seeing the World"

Introduction to Geography

AROUND THE WORLD WITH THE CHILDREN

Geographical Readers

NORTH AMERICA
SOUTH AMERICA
EUROPE
ASIA
AFRICA
AUSTRALIA AND ISLANDS OF THE SEA

Readers on Commerce and Industry

HOW THE WORLD IS FED
HOW THE WORLD IS CLOTHED
HOW THE WORLD IS HOUSED

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MADE IN U. S. A.

PREFACE

FOR more than twenty years Carpenter's Geographical Readers have held a large place in the teaching of geography. They have supplied the flesh and blood necessary to clothe the dry bones of the geographic textbooks, and have made the countries and peoples living entities in the minds of the pupils. The original books had all the charm of a story, and the pupil was so interested that the reading of Carpenter was viewed as a pleasure, not as a task.

In Carpenter's New Geographical Readers, of which this volume on Africa is one, all the charm of the original books has been retained, and many new features have been added, which give the child a live, working knowledge of his world of to-day. The human interest appeal has been intensified along the lines of the American child's sympathies and development. The pupil is shown how the various countries and peoples are associated with the United States in the life, work, and trade of the world, and how they are related to him, as a patriotic American citizen.

As to the new material in the books, during the twenty years since the original volumes were written, Mr. Carpenter has traveled more than one hundred and fifty thousand miles in foreign lands, taking notes and photographs with a view to this revision. He has extended his former travels in Africa by about twenty-five thousand miles, making his several journeys practically along the route followed in this imaginary tour with the children.

The original form of the books, that of personally conducted travels over each continent, has been retained.

In company with the author, the child himself goes from country to country, visiting the people in their cities and villages, on their farms and in their factories, finding out how they live and work, and the manifold relations he has to them and they have to him.

To acquire this knowledge is the reason for the travels; and this fact is kept uppermost by a series of questions and proposed journeys, which, worked out in connection with the tables in the back of the book, give the pupil a practical working knowledge of every country and people, and of their resources, industries, and trade. With a proper use of the book any pupil should be able to tell how the goods made in his locality can be sent to the most important African ports, and how he can go there from his home in the United States by the shortest route. He can also tell approximately how far and how long he will travel.

Throughout the book Mr. Carpenter has kept in mind the development of the American child in his world relations. By constant comparisons with things at home, he is able to visualize Africa and the part the continent plays in the new world of to-day. Americanism is everywhere present, and the pupil is made to feel the importance his own land now has in the world, and his part in maintaining it. At the same time is presented the fact that he is only one of a vast, working world family, every member of which should strive for peace and the betterment of mankind.

When these readers were first issued, many well-known instructors said they marked a new era in the teaching of geography. The New Geographical Readers are an even greater advancement along the same lines, and will prove of extraordinary value as supplementary books.

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AFRICA
SCALE OF MILES
0 200 400 600 800 1000
Railroads
Longitude 20 West from 10 Greenwich 0 10 Longitude 20 East 30 from 40 Greenwich 50
ATLANTIC OCEAN
INDIAN OCEAN
MEDITERRANEAN SEA
RED SEA
BLACK SEA
CASPIAN SEA
Persian Gulf
Gulf of Aden
Bab-el-Mandeb
Suez Canal
Strait of Gibraltar
Channel
Libyan Desert
Nubian Desert
Kalahari Desert
SAHARA
Atlas Mts.
Tarso Mts.
Tummo Mts.
Ruwenzori Mts.
Drakensberg Mts.
Nile
Niger
Congo
Zambezi
Orange
Limpopo
Kunene
Kwanza R.
Kasai R.
Shari
Benue R.
Volta
Senegal
Gambia
Sokoto
Kano
Kuka
Yola
Bauchi
Zungeru
Baro
Ibadan
Abeokuta
Asaba
Kumassi
Agades
Timbuktu
Bamako
Kayes
Dakar
St. Louis
Bathurst
Conakry
Freetown
Monrovia
Abidjan
Accra
Lagos
Duala
Yaounde
Fernando Po
Libreville
Brazzaville
Leopoldville
Matadi
Kabinda
Loanda
Benguela
Mossamedes
Elizabethville
Kabalo
Nyangwe
Stanley Pool
Broken Hill
Livingstone
Salisbury
Bulawayo
Windhoek
Walfisch Bay
Swakopmund
Angra Pequena
Port Nolloth
Kimberley
Mafeking
Johannesburg
Pretoria
Cape Town
C. of Good Hope
C. Agulhas
Port Elizabeth
East London
Durban
Grahams Town
Pietermaritzburg
Bloemfontein
Lourenço Marques
Delagoa Bay
Beira
Quilimane
Tete
Blantyre
Zomba
Lake Nyasa
Lake Tanganyika
Lake Moero
Lake Bangweolo
Mt. Kilimanjaro
Nairobi
Mombasa
Zanzibar
Dar es Salaam
Tanga
Pemba I.
Mafia I.
Kilwa Kisiwani
Tabora
Ujiji
Mozambique
Majunga
Tamatave
Tananarivo
Fianarantsoa
Tullear
Reunion I. (Fr)
Comoro Is. (Fr)
Aldabra I. (Br.)
C. Delgado
C. Corrientes
C. Ste. Marie
C. Amber
Diego Suarez
Madagascar
Ascension I. (Br.)
St. Helena I. (Br.)
Annobon I. (Sp.)
Equator
Tropic of Capricorn
Tropic of Cancer
Cairo
Alexandria
Suez
Port Said
Jerusalem
Damascus
Baghdad
Teheran
Baku
Tiflis
Constantinople
Smyrna
Athens
Sicily
Malta
Crete
Cyprus
Palestine
Arabia
Persia
Turkey
Rumania
Bulgaria
Yugoslavia
Hungary
Austria
Czechoslovakia
Poland
Germany
France
Paris
Marseille
Corsica
Sardinia
Rome
Naples
Madrid
Barcelona
Lisbon
Spain
Gibraltar
Tetuan
Melilla
Algiers
Tunis
Bizerta
Tripoli
Bengazi
Tripolitania
Cyrenaica
Solum
Ghadames
Ghat
Murzuk
Gatrun
Fezzan
Libya
Egypt
Suez
Kharga
Assuan
1st Cataract
Great Dam
Wady Halfa
2nd Cataract
3rd Cataract
4th Cataract
5th Cataract
6th Cataract
Dongola
Karima
Berber
Suakin
Port Sudan
Mecka
Medina
Massaua
Asmara
Eritrea
Abyssinia
Addis Abeba
Harar
Somaliland
French Somali Coast
Djibuti
Berbera
British Somaliland
Sokotra (Br.)
C. Guardafui
Omdurman
Khartum
Anglo-Egyptian Sudan
Sennar
El Obeid
Fashoda
Bahr el Arab
Bahr el Ghazal
Sobat R.
Blue Nile
White Nile
L. Tsana
L. Chad
Abeshr
Kano
Sokoto
Zungeru
Yaba
Bauchi
Nigeria
Cameroon
Ubangi-Shari
French Equatorial Africa
French West Africa
French Sudan
Territory of the Niger
Upper Volta
Wagadugu
Dahomey
Ashanti
Gold Coast
Ivory Coast
Liberia
Sierra Leone
French Guinea
Portuguese Guinea
Bulama
Senegal
Gambia
Bathurst
Dakar
Kayes
Bamako
St. Louis
C. Verde
Timbuktu
Agades
Niger
Volta
Kong
Mauretania
Adrar
Wadan
C. Blanco
Villa Cisneros
Rio de Oro
Southern Territories
Insala
Ideles
C. Bojador
Canary Is. (Sp.)
Ifni (Sp.)
Wady Draa
Rabat
Fez
Morocco
Casablanca
Mogador
Funchal
Madeira Is. (Port.)
Tangier (Neutr. Zone)
Tetuan
Melilla
Algeria
Oran
Biskra
Constantine
Susa
Sfax
Tugurt
Wargla
Colomb-Bechar
Mediterranean Sea
Sicily
Sardinia
Corsica
Malta
Crete
Cyprus
Aleppo
Smyrna
Athens
Constantinople
Tiflis
Baku
Teheran
Bagdad
Persia
Damascus
Jerusalem
Port Said
Suez
Cairo
Alexandria
Solum
Bengazi
Tripoli
Tripolitania
Cyrenaica
Ghadames
Fezzan
Murzuk
Gatrun
Libya
Egypt
Kharga
Assuan
Keneh
Suit
Wady Halfa
Nubian Desert
Mecka
Medina
Port Sudan
Suakin
Berber
Massaua
Asmara
Eritrea
Abyssinia
Addis Abeba
Harar
Somaliland
Djibuti
Berbera
Sokotra
Aden
Gulf of Aden
Bab-el-Mandeb
Red Sea
Persian Gulf
Arabian Sea
Indian Ocean
Atlantic Ocean
Mediterranean Sea
Black Sea
Caspian Sea
Arabia
Persia
Turkey
Rumania
Bulgaria
Yugoslavia
Hungary
Austria
Czechoslovakia
Poland
Germany
France
Paris
Marseille
Corsica
Sardinia
Rome
Naples
Madrid
Barcelona
Lisbon
Spain
Gibraltar
Tetuan
Melilla
Algiers
Tunis
Bizerta
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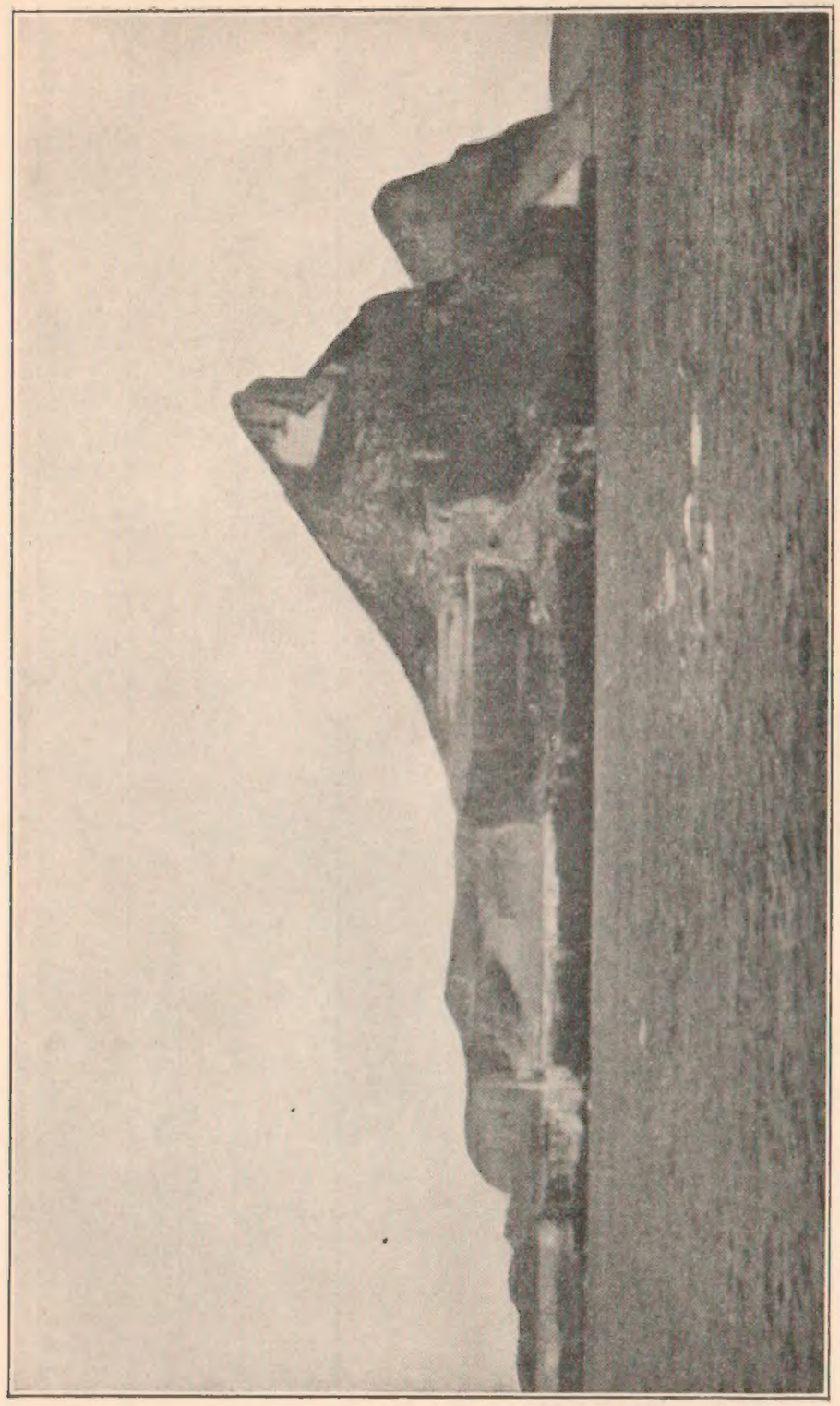
Libya
Egypt
Suez



The Rock of Gibraltar is the gate to the Mediterranean Sea, and is controlled by the British. Africa is only nine miles away.

AFRICA

I. GENERAL VIEW OF AFRICA

WE have spent some weeks in getting ready for our travels in Africa. We have laid in supplies of cool and warm clothing, have bought all sorts of medicines for tropical diseases, and also new cameras with plenty of films. The medicines and films are wrapped in oiled paper to keep out the moisture, and some of them have been sealed up in tins that they may be dry when we take them out when near the Equator.

We have saddles and bridles and the belts to strengthen our backs while riding on camels. We have guns for large and small game, and the materials for preserving such birds and insects as we wish to bring home. We also have automatic pistols. Much of Africa is inhabited by savages, some of whom are cannibals, and its wilds are the home of lions, panthers, leopards, and the terrible gorilla, a fierce ape as tall as a man and much stronger. It has elephants, giraffes, antelopes, buffaloes, and ostriches. Its rivers are full of crocodiles, and rhinoceroses and hippopotamuses are found in the woods and swamps.

We have been to Washington to get our passports, and have them viséd at the British, French, Portuguese, and other embassies, representing the nations to whom certain colonies in Africa belong. After that we came by train to New York, and took passage on one of the huge vessels

which ply from that port to Gibraltar (ji-brŏl′tēr). We have said good-bye to our friends, and sailed out through the harbor, past the Statue of Liberty and Staten Island and on into the Atlantic Ocean.

Our first day at sea was devoted to getting over our sea-sickness, and we are now thoroughly enjoying life on the ocean. We have explored every part of the steamer from the bridge where the captain stands, down to the furnaces near the keel, which are blazing with fuel oil which makes the steam that moves the ship onward. We chat with the officers and sailors, run races over the deck, and play all sorts of games, such as quoits, shovel board, and ship golf. Part of the time we hang over the rail watching the blue waters of the Atlantic churned to white foam as we plow our way through them, or stand at the prow looking out toward Africa, which is to be our home for months to come.

We take a swim every morning in the great canvas tank on the deck, and ride the electric horses and camels in the gymnasium, trying to imagine our journeys over the desert. We spend hours in our steamer chairs, studying books and maps from the ship's library to get some idea of Africa, and to plan out our tour.

It is a huge undertaking we have before us. Africa, with the exception of Asia, is the largest of the continents of the world. It is over three times as big as Australia, and more than half again as large as South America. It is nearly one fourth larger than North America, and about three times as large as the United States including Alaska and our outlying colonies. Africa contains one fifth of all the land upon the earth.

Let us look at the continent as it lies on the map. Notice its simple formation. Its shape is almost a triangle. It is not unlike South America. It has but few bays, no

long peninsulas like those of Europe and Asia, and no arms of the sea running far into the land. Its coastline is not half as long as that of Europe, although Africa has more than twice as much land.

If we could take an airplane and fly very high up, and with a powerful telescope see all of Africa at one glance, we should find that it consists of a huge block of irregular shape rising high out of the ocean. Most of the continent is a plateau from one third of a mile to a mile above the sea with a rim of mountains near the edges. The slope to the ocean is so steep that there are but few places where ships can go inland. There is a strip of low country between the plateau and the sea, but in most places this is so malarial that those who cross it are sure to have fever. Most of the rivers are unnavigable for long distances from the sea, and it is on account of the steep slope near the coast-line and the few navigable streams that the continent has remained so long unexplored by white men, although millions of civilized Europeans live just over the sea.

The mighty plateau is divided into great highlands of different levels. In the northwest is the Algerian highland, which shall be the first scene of our travels. It consists of Morocco (mŏ-rŏk′ō), Algeria (ăl-jē′ria), and Tunis (tū′nĭs), including the Atlas mountains and their beautiful scenery. A little farther to the east, extending on far to the south, is the plateau of the Sahara or Great Desert, the largest extent of dry sand and rock upon earth. We shall have to explore most of the desert on camels, for no railroads have been built across that mighty waste. Farther south at the west, between the Sahara (sa-hä′ra) and the Gulf of Guinea (gĭn′ĭ) is the Kong Plateau. This is the highland that forms the source of the Niger (nī′jēr) River. We shall sail down the Niger to the Gulf of Guinea through dense

(16) Africa. Relief and Drainage

woods, parts of which are inhabited by monkeys and gorillas. East of the upper Nile is the highland of Abyssinia (ă-bĭ-sĭn′ĭ-a), which has a greater elevation than any other plateau region in Africa. Because of its beautiful mountain scenery it is often called the Switzerland of Africa, and it may also be called the roof of the continent. Abyssinia is the home of a people still in a low state of civilization. In addition is the plateau of central Africa, including the valley of the Congo (koŋ′go). This might be called the home of the elephant and the lion, the rhinoceros, and the hippopotamus. Still farther south is the South African highland, the location of some of the richest gold and diamond mines of the world.

As we look down upon Africa from our great height, we can see streaks of silver winding their ways along the edge of the deserts and through the vast forests. At the northeast is the Nile, whose source is Lake Victoria, and whose mouth is the Mediterranean Sea. We can follow the Congo and its many tributaries shining out through the woods of central Africa as it moves on toward a break in the mountains where it falls over cataracts and descends rapids before it reaches the Atlantic. South of the Congo we can see the Zambezi (zȧm-bā′zē) River with its wonderful falls, surpassing in height those of Niagara, and in many other places, rapids which show that the continent is one of enormous water power.

Many of the rivers are unnavigable, having little traffic on them, such as that stream of vessels now passing through the Strait of Gibraltar, or the one through the Suez (sōō-ĕz) Canal from the Mediterranean Sea to the Red Sea and the Indian Ocean. The Suez Canal and the Red Sea separate Asia from Africa; the Mediterranean Sea and the Strait of Gibraltar separate Africa from Europe.

Remembering that the equator runs through the center of Africa, we can easily understand why that continent is the hottest of all. Only at the far north and the far south and on the very high lands is the climate temperate. In the north in the oases of the Sahara we see date palms and fig trees. In the far south is another desert, the Kalahari (kä-lä-hä′rē), not nearly so large but almost as dry. About two fifths of Africa is arid and covered with scrubby bushes. The remainder is high grassy plains and dense dark forests through which we might travel for miles without seeing the sun. There are some tracts of cultivated land. Wheat, corn, and barley are grown in the Nile valley and also in the far north. There are great cotton plantations in the Nile delta and other cotton fields are to be seen here and there in the semi-tropical regions.

Africa is known as the Black Continent. It is the land of the dark-skinned races, and especially of the woolly-haired negro. In the northern parts, some of the natives are like Europeans or Asiatics. The Egyptians belong to the white race, and others of the white race are to be found in the Atlas Mountains and along the Mediterranean coast. There are Arabs in the Sahara, and in the far south, Caucasians (kô-kā′shanz) from Europe.

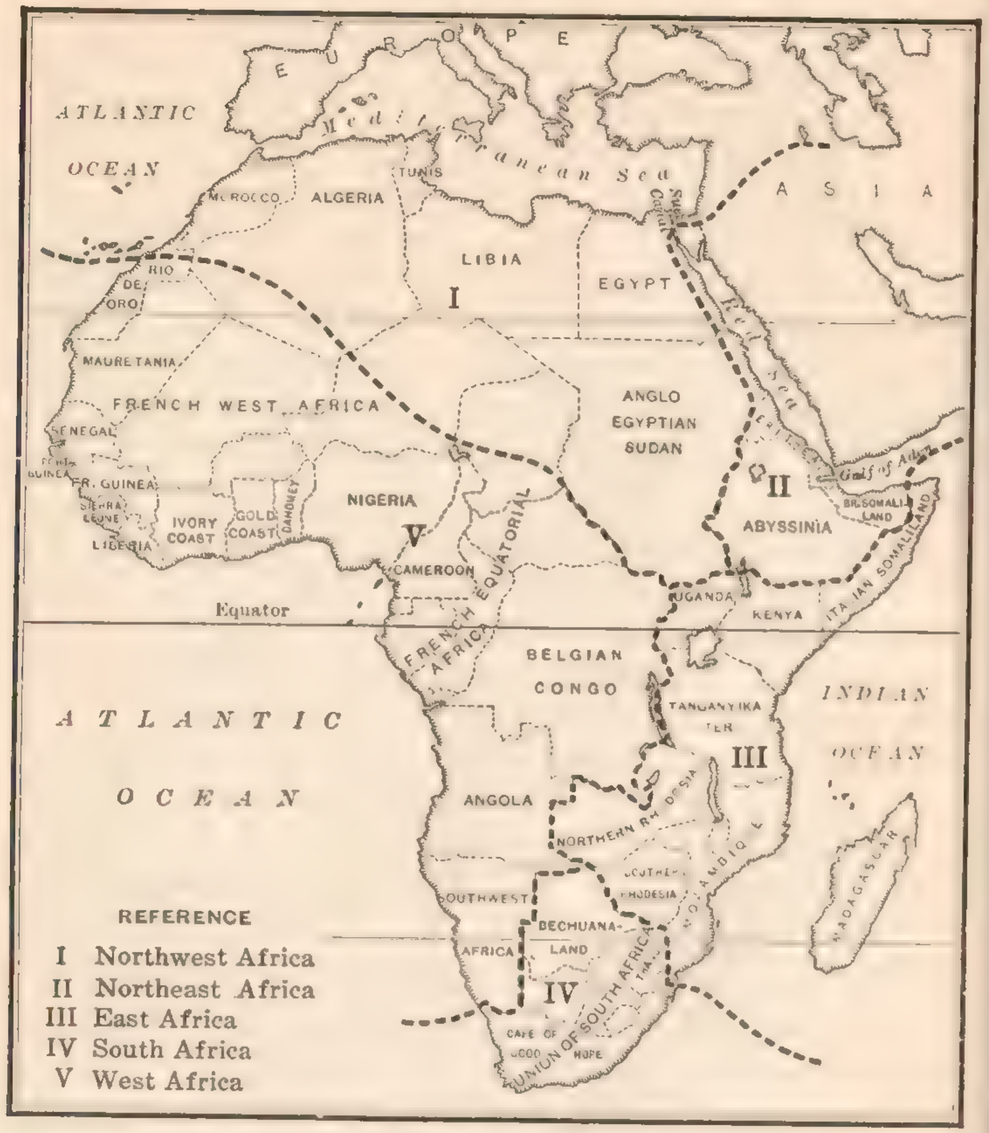
The dark races of Africa belong to many tribes. Some of them are tall, well formed, and fine looking, and others are pygmies or dwarfs. Some are savage and some almost civilized. The continent has more than one hundred and thirty million inhabitants, but they are very unevenly distributed, some tracts having no people whatever.

For ages most of Africa has been in a savage state. Its tribes have been warring upon and enslaving each other. In some cases the victors have eaten their enemies! Within the past few years, however, the great powers of Europe

have taken possession of the continent, and to-day there are only three countries which are not ruled by them. One of these is the republic of Liberia (lī-bē′rĭ-a), near the Gulf of Guinea, another is Abyssinia, south of the Red Sea, a high fertile land a little larger than Texas, and the third is Egypt (ē′jĭpt), which has been given its independence by the British. Liberia is a republic, Abyssinia is governed by an empress, and Egypt has a king as ruler.

Of the remainder of the continent, Morocco, Algeria, Tunis, and a great part of the Sahara and West Africa are controlled by the French. Tripoli (trĭp′ō-lĭ), or Libia (lĭb′ĭ-a), on the Mediterranean, Eritrea (ā-rē-trē′ä), on the Red Sea, and Somaliland (sō-mä′lē-lănd) on the east coast belong to Italy, and almost the whole of eastern Africa from the southern limits of Egypt to the Cape of Good Hope is governed by the British. The only exceptions are Abyssinia, Eritrea, French Somali Coast, Italian Somaliland, and Mozambique (mō-zam-bēk′), which lies just opposite the island of Madagascar (măd-a-găs′kar). Mozambique and Angola (ăn-gō′la) belong to Portugal; Madagascar belongs to the French. The forest region on both sides of the Congo River is a dependency of Belgium.

Before the World War, Germany had large colonies in East Africa, Southwest Africa, and along the Gulf of Guinea. By the Treaty of Peace, Great Britain was given a mandate over the German territories on the east and the southwest, and those along the Gulf of Guinea were given to the British and French. To-day the British and French have more African territory than any other European nations, their colonies being scattered throughout the continent. Nevertheless the Belgian and Portuguese territories are many times the size of either Belgium or Portugal, and Libia is about four times as large as Italy, although it is



Trade Divisions of Africa

almost all desert. As we travel over Africa we shall learn just what each nation controls, and shall see that the natives are often much better off than they were when they tried to govern themselves.

In exploring the continent we shall find out how the different countries and peoples are connected with the

United States in commerce and trade. We want to know what things they have to sell us and what American products they might buy. We believe that each of the one hundred and fifty million people ought to have something from the United States and that many of them can supply us with goods we need in exchange.

For the purpose of trade we may divide Africa into five great regions according to the routes of the steamers to and from the chief ports of the continent. One of these is northwestern Africa, reached by the Strait of Gibraltar and the Mediterranean Sea. We are traveling on that route to-day. The next trade division is northeastern Africa, including Egypt and Abyssinia, and closely joined to Aden (ä′den), Arabia. Our goods for that division go into the Mediterranean and some of them through the Suez Canal and the Red Sea into the Indian Ocean. The third trade division is along the coast of the Indian Ocean. This is closely connected with India and Aden. It may be reached also by an extension of the last route, or from Europe, by steaming to the Cape of Good Hope and thence up the east coast. The fourth trade division is South Africa. Steamers reach it by going direct from New York to the Cape of Good Hope, and on to the other ports of southeastern Africa. The most traveled route is via Liverpool or Southampton. South Africa is inhabited largely by the white race. Its wants are greater and its products more desirable than those of any of the other regions. In addition to these four trade divisions is the coast of West Africa, including the colonies along the Gulf of Guinea and the Congo. The people of this section are for the most part savages, and their needs and products are few. Many of our exports to West Africa go first to Europe, and thence to Boma (bō′mä) at the mouth of the Congo, or ports farther north.

We should like to learn more about Africa before landing, but our life upon shipboard does not seem fitted for study. Try as hard as we may, our eyes leave our books again and again to look at the waves as they roll on and on until lost in the sky in the distance. It grows warmer as we steam southward and flying fish flash like silver arrows as they dart from wave to wave. Schools of porpoises race along side by side with the steamer, rising and falling and now and then jumping over each other as though playing leap-frog. One day a huge whale spouts up a geyser of water away off at the right, and on another we pass a big steamer bound from Gibraltar to New York. There are children on board. They wave their handkerchiefs at us, until we are out of sight.

As we approach the coast of southern Europe, sea gulls by scores come out and hover over the ship, swooping down for the scraps of food thrown overboard. We pass through the Azores, a mountainous group of volcanic islands where Columbus first landed on his way back to Europe after discovering America, and a little later we sight the red cliffs of Cape Vincent on the Portuguese coast. We have our first glimpse of the African mountains as we approach the Strait of Gibraltar, and as we come to anchor in Gibraltar Bay under the frowning guns of the British fortifications, Africa is in plain view.

1. Bound Africa. It was formerly called a peninsula belonging to Asia. Is this true to-day?

2. Compare Africa in size with the United States; North America; South America; Asia. What effect has the surface of Africa had upon its civilization and development?

3. Mention the four highlands into which the great plateau of Africa is divided. Name the four principal rivers and locate them. Compare the coastline with that of Europe. What effect has this had on the development of the continent?

4. What is the climate of Africa?

5. What is the population of Africa? What proportion of the people are negroes? What proportion belong to the white race? Have we many people descended from African races in the United States? Who are they? Why did they come to this country?

6. What countries of Africa are independent? Compare them in size with the rest of the country; with American states.

7. By what two nations is most of Africa owned? Locate the parts of the continent belonging to England; to France; to Portugal; to Italy; to Belgium. Why should these countries of Europe desire colonies in Africa?

8. What are the five trade divisions of Africa and how may each be reached from New York? How far is it from New York to Gibraltar? To Port Said? To Cape Town?

II. MOROCCO

BEFORE we cross the Strait of Gibraltar, let us take a look at northwestern Africa. Morocco is so close to Europe that it would seem the two continents might be easily joined. At the western entrance where we now are, the Strait of Gibraltar is only nine miles in width. The channel through the center is one thousand feet deep, but the engineers say a railway tunnel might be made under it and some day it may be possible to go from Europe to Africa by rail.

Northwestern Africa is so different from the other parts of the continent that it has a name of its own. It is sometimes called Little Africa, or Barbary, and the Arab geographers knew it as "The Western Island." This island is bounded on the west by the Atlantic Ocean, on the north by the Mediterranean Sea, and on the east and south by the Sahara, which we call the great sea of sand. The high mountainous plateau inside these boundaries is of enormous

extent. It is longer than the distance from Chicago to Boston and wider than the distance from New York to Washington. Its area is greater than all our Atlantic states and it comprises the three countries of Morocco, Algeria, and Tunis.

A great part of Little Africa is wildly mountainous. The Atlas range is fifteen hundred miles long and some of its peaks are almost as high as the highest of the Rockies. The country in general resembles southern Europe to which it may once have been joined. It is also like New Mexico and Arizona. Portions of it are dry and barren; some regions have a fairly good rainfall, and others are made fertile by irrigation. The land is a beautiful one; the mountains are covered with forests, including cedars, cypresses, and the cork oak that supplies the bottle stoppers for much of the world. The valleys produce figs, oranges, lemons, apricots, and peaches, and all the grains of southern Europe. There are many flowers, and we shall see great beds of daisies and daffodils, and buttercups and irises during our travels. The climate is temperate and suited to the white race.

The natives of northwestern Africa are Caucasians who have lived there for ages. They belong to the same race as we do. Many of them are known as Kabyles (ka-bīlz′) or Berbers. They have fair complexions, rosy cheeks, blue eyes, and light-colored hair. Others of the natives are darker. The Moors and Arabs, for instance, are the descendants of the Mohammedan warriors from Arabia who conquered northern Africa centuries ago. They are still the ruling class throughout the country. They are darker than the Kabyles, but their features are similar to ours. The Moors are to be found mostly in the towns and on the farms. The Kabyles live in the mountains. There are also Jews in the

cities, and many negroes who were brought by caravan across the Sahara to be used as slaves. We shall learn more about these peoples as we travel among them.

But the little vessel that makes daily trips to Africa is waiting in the harbor of Gibraltar. We go on board, and within less than three hours have steamed across the Strait to Tangier (tăn-jēr′), the chief port of Morocco. We have come to anchor in a bay surrounded by hills, at the foot of which is a white city with great white walls about it. The towers that rise here and there above the rest of the buildings are the minarets of Mohammedan mosques, and the shrill-voiced men standing upon them are the priests calling the people to prayer. That tree which rises high over the wall is a date palm, and the big building near it is the citadel where the governor of the district lives.

We leave our boat and follow our baggage to the hotel. We then climb up to the citadel for a view of the town. What an odd city! We cannot realize that we are within gunshot of Europe, and that this is the twentieth century. The square, box-like houses with their flat roofs seem to have bobbed up out of the Arabian nights. There is not a chimney in sight, and no smoke to be seen. There are almost one hundred thousand people living in the jumble below us, and all their cooking is done upon charcoal fires inside basins of clay. The houses look like gigantic dry-goods boxes pitched out of the sky and divided by long narrow streets without regular order.

Notice the swarthy, brown-skinned men in turbans and gowns who go through the streets. Some are riding donkeys and mules, others are on foot. There is a man in turban and gown on a camel, and behind comes one on a horse. Now a mule passes. A long train of donkeys carrying heavy loads on their backs is going down that street.

The tower in the foreground of the white city of Tangier is a Mohammedan mosque. The tree is a date palm.

The people are as strange as the animals. Part of the crowd reminds us of a sheet-and-pillow-case party or a large masquerade. We are jostled by dark-faced Moors in burnooses, long cloaks with hoods which cover the head, showing only the face and beard. Others have turbans and white gowns, and some wear the red fez caps of Morocco and the black clothes of Europe. Many are barefooted; others have slippers of bright yellow and red, with thin soles that make little noise on the cobblestone roadway.

See those sallow-faced men in caps and long coats bound in at the waist with bright-colored sashes. They are Jews. We shall meet thousands of them in Morocco. They do most of the banking and trading, and many of them are rich. They are despised by the Moors and live in a quarter by themselves.

Look out for that water carrier or he will sprinkle you as he goes by. I mean that man with the fat, black bag of goatskin on his back. All the water of Tangier is carried either that way or in jars. It comes from the springs and wells; it is sold throughout the city, water carrying being a regular trade.

What are those odd figures coming up the street? They look like white bedticks tied in at the top, walking on feet. They are Moorish women who, by Mohammedan custom, must keep their faces hidden from all men but their husbands. The girl at the right has pulled her head cloth to one side and holds it there, peeping out through the crack.

Listen to the children singing in this side street at the left. That is a class of young Arabs learning their lessons. We follow the sound and peep in. A number of dark-faced boys in caps and gowns are sitting on the floor of a room upon cushions, some before little desks. Each has a book in his hand, and all are singing the verses of the Koran, or

The boys in this Arab school sit in a circle in front of the teacher. They are studying the Koran, which is the Mohammedan Bible.

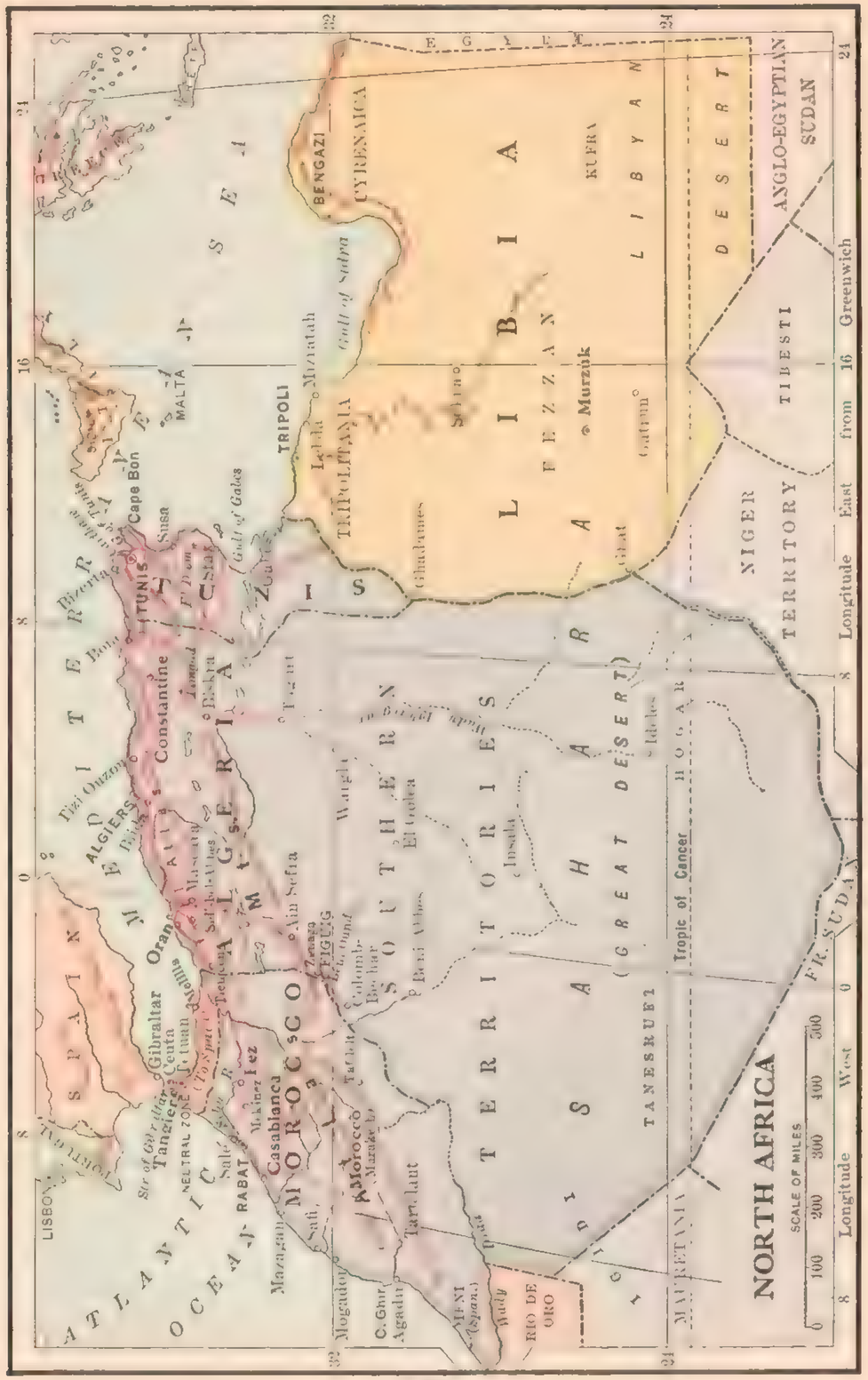
Mohammedan Bible, which they are trying to learn. The black-bearded man in the white turban is the teacher. He looks rather fierce. He uses a little rod to keep his pupils in order. Those shoes near the door belong to the children. They take off their shoes while in school, although they keep their caps on. There are many such schools in Morocco; and Fez, the chief city, has universities which are noted all over northern Africa.

Leaving the school, we go on to the hotel, where we have dinner served much as at home. Our waiters are little Arabs, wearing turbans and gowns. Later we visit the bazaars and then go outside the walls to the market, where all sorts of goods are sold.

What a curious place! It is like a great gypsy encampment. There are little tents scattered over the fields, and near them are men, women, and children sitting on the ground or moving about, or standing in groups laughing and chatting, buying and selling. Here two are quarreling, there one is pulling a donkey away from another, and farther over are three long-gowned Arabs loading their camels for a caravan trip across the desert. The ungainly beasts are down on their knees, grunting as each new burden is added.

That black-faced Moor, with the crowd about him, is a professional story-teller, the boy beyond him is peddling lemonade, and those two well-dressed men coming this way are merchants buying sheepskins and wool for shipment to the United States. There are women, some with veils and some with bare faces. There are so many strange sights that we cannot comprehend them all.

And then the camels and donkeys! They are everywhere. We enjoy riding the donkeys and they like to have us pet them. But we must watch out for the camels. They look

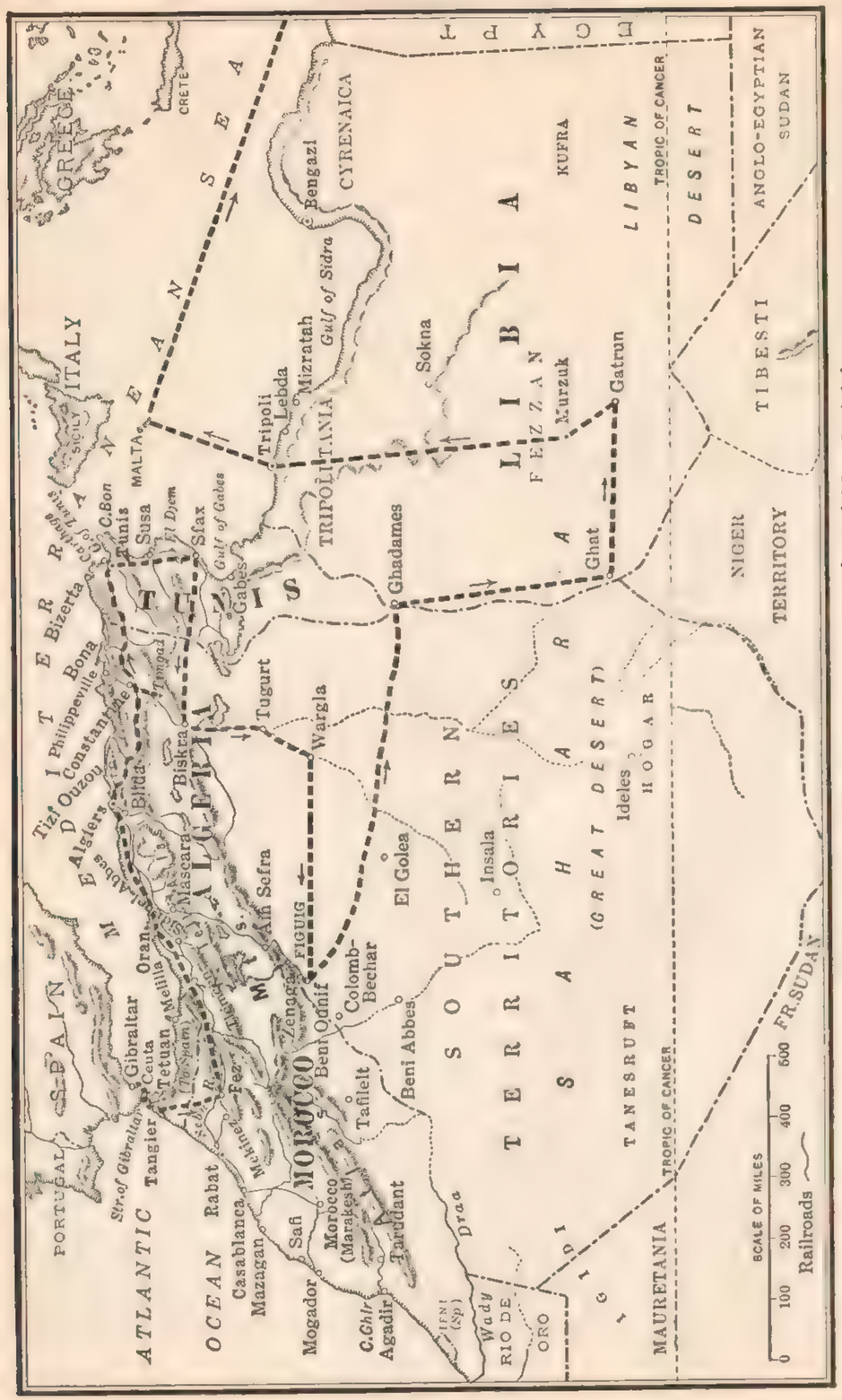


sullen and angry; they are treacherous beasts and are likely to bite us as they pass. We stop at the stand of a fruit peddler and buy figs, oranges, and dates. We watch the men selling wool and grain; and talk through our guides with some Arab soldiers who have come in from the country.

After this we hire horses and mules for our trip to Fez, the chief city of central Morocco. We try horse after horse to get the best riding animals, and pick out the largest of the mules to carry our baggage. Fez lies in the interior of the country about a week's ride from Tangier. When the railroad now planned is completed, the distance will be covered in less than a day. Just now the only railroads in Morocco are some little lines running in from the ports. There is one from Casablanca (kä-sä-blăŋ′kä), on the Atlantic, to Fez, a distance of two hundred and eleven miles, and another from the same port to Marakesh (mä-rä-kĕsh′), which is shorter. The Tangier-Fez line is building, and a railroad has been constructed from Fez to Algeria.

III. FROM TANGIER TO FEZ

WE have left Tangier and are traveling on horseback through this strange land of the Mohammedans. We go first through the narrow strip at the north known as Spanish Morocco, and then enter French Morocco, the large territory at the south. We have an escort of Moorish soldiers furnished us by the officials of Tangier to protect us from the wild tribes and brigands. We have also a caravan of pack mules to carry our baggage and the tents in which we shall rest at noon and at night. Our servants are dark-faced Arabs in burnooses and our soldiers carrying long guns look very fierce. The men with the tents usually start out



Route of our travels through the countries of North Africa

ahead, and when we reach the camping places the tents are already up and our meals prepared. We have plenty of canned food with us, and we can buy fresh fruits, chickens, eggs, and milk at the villages and towns on the way. Our animals are fastened at night by tying their fore feet together with a long rope, which is secured to a peg driven into the ground. We start early each morning and walk, gallop, or trot, as we please, on the way. Our speed is regulated by the pack mules, which make only two or three miles an hour.

The trail changes from time to time. Now we are in the mountains where the fierce Berbers live; they stare at us and evidently despise us because we are Christians. Now we are on the plains in the farm villages of the Arabs, and now in towns somewhat like Tangier, where the chief people are Moors.

How delightful it is! The sky is bright blue, and the air from the Atlas mountains, whose highest peaks are now covered with snow, is pure and bracing. There are few good roads in Morocco; the chief routes are along caravan tracks and bridle paths, and our way is right through the fields. Much of the land is rich. We ride for miles through crops of green barley, wheat, millet, and corn, now going over a plain spotted with daisies, daffodils, buttercups, and irises, and now through valleys where there are beautiful ferns and palmetto trees. We see many fig orchards, surrounded by prickly-pear hedges, and groves of dark-green olive trees loaded with fruit. Farther up in the mountains are vineyards, and lemon and orange trees. There are also forests of walnuts and the evergreen oaks whose bark is used for corks.

At times a large stork flies over us, and again a flock of crows or an eagle. The air is filled with buzzing beetles

Camels carry enormous loads in Morocco. This one is almost covered by the hay on his back.

and other insects. We catch butterflies whenever we camp, and gather wild flowers to send home to our friends. Ripe dates and figs are brought up fresh from the trees, and we stop at an orange orchard to pick some of the fruit.

At one place we visit a large fruit farm and see figs prepared for export to the United States and Europe. When the figs are dead ripe they are gathered and laid upon boards in the sun to dry. When dry they are pressed into shape one by one, and then packed in boxes or mats for shipment abroad.

Morocco has many delicious figs; some kinds are white, some black, some purple, and others yellow or green. The purple figs are among the best, although the yellow ones are more beautiful.

Fig trees are raised from seeds. The sprouts are transplanted in rows about as far apart as peaches or apples. The trees begin to yield fruit at three years and some varieties will produce two crops a year for centuries. Figs are grown in different parts of northern Africa, in Spain, Portugal, Greece, and other countries on the Mediterranean Sea, and also in California. There are altogether more than three hundred varieties of this fruit.

Another valuable product of Morocco is the olive. We see olive orchards almost everywhere, and watch the dark-skinned people gathering the fruit and pickling it or pressing it to make olive oil. Olives when first picked look much like blue or green plums. The trees are set out not far apart and are carefully cultivated. At about the eighth year after planting they come into bearing after which they will bear for a hundred years or more. For this reason it is said that the man who sets out an olive orchard lays up an inheritance for his children's children. Some trees will yield forty gallons, and some even one hundred gallons of olives in one year. The fruit for pickling is gathered comparatively green; that for oil remains on the tree until dead ripe. In making oil, the olives are spread on a floor of glazed tiles to let the water in them run off. After this they are pressed, yielding an oil which is the olive oil of commerce.

Going onward we see strange things at every step. We pass camels so loaded with grass that they look like hay stacks on legs. There are many men in turbans and gowns, and women with covered faces like those of Tangier. The people riding the camels bob up and down as the huge beasts swing themselves over the roads, and those upon donkeys can almost touch the ground with their bare feet as the little beasts patter along. Now a turbaned Arab

The Kabyles build their villages high up in the Atlas Mountains. These people are among the oldest of the white race.

calls out to us, "Salaam aleikoom," which means "Peace be with you." Our guide tells us how to reply, and we cry out as we bow, "Aleikoom salaam," "With you be peace."

Some of the natives, however, are by no means so friendly, and were it not for our guard we might have to fight. Now and then a company of fierce-looking Arabs with long guns in their hands dashes by on horseback. They are Mohammedans from the desert and are unfriendly to Christians.

We pass through many villages of rude huts made of stone, mud, or straw. Each house has a wall or hedge of cactus about it; many have dogs which bark at our horses

as we ride by. Some of the villages are high up on the hills and some are on the plains. Many are partly composed of tents, and some are tents all arranged in circles or squares. The tents are the homes of shepherds who are pasturing their flocks, moving on as the grass fails. The shepherds wear hoods and long cloaks. We hear them singing as they tend their sheep in the fields. There are goats everywhere; they are reared for their wool and skins.

Now and then we cross brooks, creeks, or little rivers; and at such places always find the people using the water to irrigate the fields. They raise it to the higher levels by two wheels set at right angles to each other, moving in cogs and connected with a third wheel, which has clay jars tied to its rim. This last wheel is so set that, as it turns, the jars dip into the water. As they come to the top they

Most of the water for irrigation is drawn up from the wells in buckets by camels.

empty into a trough which leads out to the fields. The motive power is usually a blind-folded ox, camel, or mule.

The farming of Morocco is rude. The plows, which have but one handle, are often little more than crooked sticks shod with iron, which scratch the surface of the ground. The farmers are poor; they have always been heavily taxed, the king's officials leaving them little more than enough to support life. Now that most of Morocco is under the French they may be more fairly treated. The soil is rich, and they should have American tools to cultivate it. We make a note to report this to our American manufacturers when we reach home.

The chief crops of Morocco are wheat, barley, corn, and millet, with some oats and beans. The country is excellent for grazing and has millions of cattle and sheep and goats as well as thousands of horses and mules and tens of thousands of camels. The French are planting many vineyards and the land promises to be a great fruit orchard whose chief market will be Europe just over the way. Already there are more than a million and a half olive trees and a million and a half fig trees, while oranges and lemons are grown almost everywhere. The French are trying to raise cotton in some parts of Morocco and this cotton may compete with ours in the markets of Europe. Just now American cotton goods are sold here, although most of the cotton comes from Great Britain. There is no reason, however, why more cotton should not be sent from the United States, for the ships from Galveston, New Orleans, and our Atlantic ports can easily reach all the ports of Morocco.

Going farther south on our horses we cross the Sebu (sē-bo͞o′) River, and a little later find ourselves on the green plain of Fez. We make our way over a country covered

The tents of the wealthy Moors are often gayly colored. We pass many of them on our way to Fez.

with palmetto trees and coarse grass, now passing through plains spotted with wild flowers and rich crops, until at last, away off in the distance, we see a white city. It turns gray as we near it, and we perceive a gray wall with towers upon it. The domes and minarets of mosques rise high above the wall. We are now in sight of Fez, the chief city of Morocco, and the home of the Sultan for a part of each year. It lies about one hundred miles south of the Mediterranean Sea, in a pear-shaped valley surrounded by hills on which are orchards of orange, pomegranate, olive, and apricot trees.

We meet more and more people as we come closer. There are tents outside the walls, and caravans of camels and donkeys going back and forth over the road. Aided by the escort that has been furnished us, we pass through the crowd and enter the gates. We are at last in the famous

old city of Fez, which for many years was the capital of Morocco, and one of the chief cities of the Mohammedan world.

IV. A WEEK IN FEZ

MOROCCO is now a dependency of France and Spain. The Spanish control a territory about sixty miles wide and two hundred miles long, extending south of the Mediterranean coast, and the French all of the region below that. The people are supposed to be governed by a Sultan, who is the religious head of the Mohammedan people, just as the Sultan of Turkey is the religious head of the Mohammedans in the other parts of the world. In the French territory the Sultan has to follow the advice of the French Resident General in all matters, and in the Spanish territory the advice of the Spanish high commission. The French territory, which contains most of the people, is by far the more important. Here the Sultan has a French minister of war appointed by France, a secretary of the treasury under the control of the French director-general, and in all of the chief cities there are French officials who direct what shall be done.

Most of the people of Morocco live in villages and desert encampments. There are but few cities. The largest is Fez, which is about the size of Albany, New York. Marakesh, or Morocco, to the south of it is smaller, and after that come Casablanca, Tangier, and Mekinez (měk′ĭ-nĕz). Casablanca, Mazagan (måz-å-gän′), Rabat (rå-bät′), and Mogador (mŏg-å-dōr′) are ports on the Atlantic coast. The Sultan has a capital in each of the four cities of Fez, Tafilelt (tä-fē-lĕlt′), Marakesh, and Rabat, and lives in

his palaces there a part of the time. Rabat is the seat of the government, with the French resident general in charge.

The other ports of Morocco are much like Tangier. Each has a mosque or two, a collection of flat-roofed, bright-colored buildings, and a market. The streets are narrow and dirty, and thronged with dark-skinned people in Moorish costumes.

The trade to and from many of the ports is chiefly by camels or mules, which cross the desert in great caravans to the oases and even to the tropical lands south of the Sahara, known as the Sudan. Camels are the only animals which can travel long distances without water, hence they are extensively used for such journeys. In the mountains, donkeys, horses, and mules take their places.

Casablanca and Rabat are the chief ports on the Atlantic and both are rapidly growing. Casablanca is connected by railway with Fez and Marakesh. The principal imports of Morocco by sea are cottons, sugar, and tea; and its exports are the skins of sheep and goats, the hides of cattle, and also wool, wax, olive oil, almonds, and eggs. Much fruit goes to Europe and some figs to the United States.

We have rented a house in Fez for our stay. We have it all to ourselves with the exception of the turbaned, long-gowned, black-skinned servants, who bring in our meals and make our beds.

The house has blank white walls facing the street. Entering we come into a court paved with tiles and lighted by a lantern of bright-colored glass. The court is surrounded by large rooms, each of which has a low ledge running about the wall, which serves as sofa and chairs. We are expected to sit cross-legged, and do so for a time, but it is tiresome and we soon hang our legs down. In the bedrooms are wider ledges, upon which we sleep at night.

The house is by no means uncomfortable. The stone floors are covered with beautiful rugs. The high ceilings make the rooms cool, and above each door is a fretwork of wood for air.

In the evening we sit or walk about upon the roof. It is flat with a little wall around it. We could stand on the wall and get a view of the city were it not impolite to do so. The tops of Moorish houses are the evening lounging places of the ladies, at whom, according to Mohammedan custom, it is not proper to look. We can see, however, that all Fez is flat-roofed. The common buildings are uniformly low, and the few that rise high above the rest are mosques, which have great domes and minarets cutting the sky. There are more than one hundred mosques in the city.

Inside the walls of our house is a garden, where there are palm, orange, and lemon trees, tropical plants, and beautiful flowers. It makes us think that Moorish life is not so bad after all.

We spend day after day strolling in the streets. How crowded they are! The donkey riders and burden bearers are always calling to the others to keep out of their way. The streets are so narrow that we have to jump from one side to the other. We are careful not to offend any one; for Fez is a Mohammedan city, and many of its people do not like Christians.

We walk by the mosques without going in. The Moors do not welcome unbelievers inside their churches, and we are content with what we can see through the doors. There are many worshippers; some on their knees and some rising and falling and bowing their heads to the floor, praying in the Mohammedan way.

Outside in the courts are fountains, where turbaned, long-gowned men are washing themselves before going in.

As the Mohammedan prays, he touches the ground several times with his forehead.

The Mohammedan always washes himself before he prays, and if he is out on the desert where he cannot get water he rubs his hands and face with sand. Every good Mohammedan prays five times a day. That man away up there on the gallery of the minaret is calling the people to prayers. His words are in Arabic, but the guide tells us what they mean. He is saying: "Come to prayer! Come to prayer! Prayer is better than sleep. Come to prayer!"

We visit the famous university for which Fez is noted. It now has seven hundred pupils and forty professors. In addition the city has fourteen colleges and many small schools. For more than a thousand years Fez has been famous for its schools of learning. The teaching, however,

relates chiefly to the Koran (kŏ-rän′), the Mohammedan Bible, leaving out almost everything we consider essential to a good education. The French are now establishing schools like ours in many parts of the country.

Let us go to the bazaars and see how business is done. Here the chief streets are roofed with matting or grapevines, and we can stroll along out of the sun. It seems almost twilight, although we had the glare of a tropical midday outside. The streets are narrow, and facing them are box-like stores, most of which are little more than holes in the walls. In each box sits a merchant, with his goods piled around him or hung upon racks overhead. Each man has his own kind of wares. Some are selling perfumery, some

The stores in Fez are not much more than holes in the wall, and the customers must stand outside to make their purchases.

rugs, some spices, and others the beautiful leather things for which Morocco is famous. There are shoe stores and grocery stores, cook shops where they are broiling meat upon iron skewers over basins of charcoal, sweetmeat shops where candies and dried fruits are kept, and other places where we buy delicious fresh dates and figs.

We watch men working at their trades in the shops. Here they are weaving silk, and there making the red Fez caps worn in Morocco as well as in Turkey and Egypt. These caps first came from here, and Fez gives them their name. In a side street we see boys embroidering red leather slippers, and across the way are smiths hammering at jewelry of silver and gold.

The customers are equally strange. There are Berbers from the mountains and fierce Arabs who have come from the desert; there are Moorish women peeping out through cracks in their cloaks, and with them jet-black negro slaves waiting to take home their purchases; there are sober-faced boys and bearded men in burnooses, all buying as cheaply as they can. As the prices are not fixed, the merchant will take less than what he first asks.

During our stay we see the Sultan as he rides through the city on horseback. He has his soldiers with him and goes about in state. The Sultan is supposed to be descended from Ali, the son-in-law of the prophet Mohammed. He is not subject to the Sultan of Turkey as are other Mohammedan rulers, and is the head of the Mohammedan religion of this part of the world. Before the French came he had absolute power and some of his punishments were barbarous ones.

Morocco is rapidly improving under the French. They have continued the old government but are reforming the tax laws and making many improvements. They are teaching

better farming and irrigation. They have begun to build roads in many parts of the country and soon we shall be able to reach the chief centers by railway. Many French immigrants are settling in the country, establishing colonies at all the principal ports. With good government Morocco will take a more important part in the commerce and trade of the world.

1. Locate Morocco. Why is northwestern Africa sometimes called an island? What kind of sea bounds it on the south? Compare Morocco in size with Algeria; with an American state.
2. Name the chief ports on the Atlantic. What is the principal town of the interior?
3. Who are the Moors? The Kabyles? What other peoples live in Morocco?
4. Take a walk through Tangier and describe it. Make a trip on horseback from Tangier to Fez and tell what you see.
5. What are the chief crops? Describe the farming. Tell all you can about olives and figs.
6. What are the chief exports? What kind of American goods might be sold?
7. Tell the story of your travels through Fez, describing the schools, stores, and mosques. Who was Mohammed?

V. IN AFRICAN FRANCE

HIRING motor cars in Fez, we have made our way across Morocco into Algeria and are now at Oran (ō-rän′) on the Mediterranean Sea. Oran and Algiers are the two chief gateways into the country, although eastern Algeria gets some goods through the port of Tunis in the protectorate of that name farther east.

Each of these three ports has constant boat connection with France. There are steamers almost daily from Marseilles to Algiers, and frequent sailings to Oran and Tunis.

The Algerian farmer and his wife ride to market on a donkey. These animals are much used here.

Algeria is so important that it is sometimes called African France, although the French control also most of Morocco on the west, Tunis on the east, much of the Sahara on the south, and large countries along the west African coast.

Algeria and Morocco are of about the same size and Tunis is about one fourth as large as Algeria. Algeria is equal to five states as large as Pennsylvania. If it could be lifted up and transported to France, it would cover the whole of it. It consists of the coast range of the Atlas known as the Tell, and the rich plains and valleys between it and the Atlas proper, including the high plateaus and valleys of the Atlas which furnish excellent pasture. On the southern slope of the mountains are tracts of scanty vegetation which fade off into the sands of the Sahara.

We have been traveling through the Tell on our way from the boundary of Morocco to Oran and we shall be in it during a great part of our stay in Algeria. It appears to be a land of rich farms, gardens, orchards, and vineyards, able to support most of the five or six million people who make up the inhabitants.

The native Algerians are much like the Moroccans. There are many Kabyles, people of the white race, some with rosy complexions and fair hair; there are many brown-skinned Arabs, with black hair and eyes, fine teeth, and aquiline noses; there are Moors and negroes and Jews mixed with the others. All but a few hundred thousand are Africans. The others are Frenchmen, Spaniards, Jews, and Italians. Of these the French are by far the most numerous and are steadily increasing in number.

But how did Algeria become a possession of France? The story is somewhat connected with the history of our country. For more than ten centuries Algeria, Tunis, and Tripoli were the homes of some of the greatest robbers on

earth. They were ruled by the Barbary pirates, Moors who preyed upon the shipping of the Mediterranean Sea, robbing and enslaving their captives. They were so strong that other nations paid tribute to them in order that their ships might not be molested. This was at the time we began to build up our commerce, and for a while we also paid tribute.

In 1815, however, the United States decided that it would submit to this imposition no longer, and Commodore Decatur was sent out with some of our men-of-war to serve notice to the Dey of Algiers, the leader of the pirates, that we would pay him tribute no longer.

As the Commodore gave this notice his guns were pointed at the city of Algiers, and the Dey saw he would have trouble in enforcing his demands. So he suggested that the tribute might be omitted if the Commodore would storm the town, using powder only. The Dey thought such a pretense would give him an excuse for not enforcing the tribute. Commodore Decatur replied that cannon balls always went with American powder, and that if the Dey took the one he must take the other. The result was that all talk of tribute was dropped, and the Americans sailed away.

A little later the English refused to pay, and in retaliation for outrages they laid Algiers in ruins. Then came trouble with France, and the Dey, while discussing affairs with the French representative, grew angry and struck him in the face with his fan.

That blow cost him his kingdom. The French at once declared war. They sent an army to Algeria, defeated the Dey, and annexed the country to France. This was in 1830, and since then the French have been in possession. They have made Algeria one of the states of their republic. It

The French are building railroads into the desert, where one can travel for hundreds of miles seeing nothing but sand.

sends its own representatives to the Congress at Paris and is ruled by a governor-general and other French officials.

In this country, motor roads and railroads enable us to travel almost everywhere on the cars. There are railways which even go down into the desert and an automobile road running from Tugurt (to͝o-go͝ort′) across the Sahara to Timbuktu. Airplanes frequently fly right across the desert from one side to the other.

In Algeria the French have good schools, and Algiers has a university of about fifteen hundred students. Most of the people are Mohammedans, and thus we find many Mohammedan schools.

Parts of the country are as well farmed as France and contain hundreds of thousands of acres in vineyards. There

is one plant from which an oil is made that is shipped to America. You may have heard of this plant. It is the castor bean from which castor oil comes. The country grows also wheat, barley, corn, and oats, and forms a fruit and vegetable garden for parts of Europe.

Oran is the chief port of western Algeria. It is about thirty-six hours' ride by steamer from Marseilles and the ships go back and forth almost daily, carrying Algerian products to France and bringing back French manufactures. We take motor cars and ride round the harbor which is below the city and protected by a long pier or breakwater. We climb the hill and motor through the wide and well-paved streets. Many of the buildings are made of marble from the mountains near by. They are of European architecture, consisting of four or five stories with shops on the ground floor and hotels or apartments above. The stores are like those of France. There are many cafés facing the street, with tables outside, about which Africans and Europeans sit and chat as they drink coffee and wine. On the outskirts of the city are white, boxlike buildings, the homes of the Arabs and Moors, and in the native quarter are bazaars and all the queer features of Oriental life. We see many mosques as well as Christian churches.

In Oran the Algerians and the Europeans are mixed together. Here comes a Jew with his cap and long coat tied at the waist. Behind him is a Moor in turban and gown, and further up the street are blue-eyed Berbers who have come in from the country with fruit and vegetables. We see French soldiers in Zouave (zo͝o-äv′) uniforms with long-tasseled caps on their heads, and, now and then, a French lady, as dainty as though she had stepped from the boulevards of Paris into the queer streets of this town of African France. There are Moorish ladies in veils and Jewish girls

The desert musician's instrument is roughly made of wood, with two or three strings.

without veils. There are light Berber women with arms and faces tattooed, and altogether such a strange medley of people that we are at a loss to classify some of them, and wonder who they may be.

We spend a day at our hotel, enjoying the excellent meals, and then take the cars for the city of Algiers, the capital, about two hundred and sixty miles to the eastward. How delightful the trip is! The sky is bright blue and the air from the mountains is bracing. A great part of our journey is through the rich lands of the Tell, past plantations of tobacco, wheat, barley, and oats, and over plains covered with alfa grass, which men are cutting and baling for shipment to Europe, where it will be made into paper. Here and there are orchards of apples, peaches, and pears, and even ripe oranges. There are trees loaded with dark-purple figs and other trees full of light-yellow lemons. There are gnarly olive orchards bearing fruit like green

plums, and vast vineyards loaded with grapes used for making wine for export to France.

Now we leave the plains for the mountains. We ride for miles through forests of cork oaks, where men are cutting the bark and baling it for export, to be made into bottle stoppers and other such things. There are sheep, goats, and camels feeding on the grass, watched by shepherds, and now and then a village of tents, made of black and white cloth, wherein the nomads, who move about with their flocks from pasture to pasture, make their homes.

There are many villages in the Tell, including settlements inhabited by the French, and in both mountain and valley are the little towns of the Kabyles or the Berbers. The Berbers are the most industrious people of northern Africa. They work for the French on the farms and in the cities. They have also many small farms of their own, scattered about the villages where they live, their lands being so carefully divided that several families will often own a part of one petty tract.

Now and then we leave the train to visit the villages. The Berbers are polite; they show us their houses and make us feel at home. The ordinary house has but one story, and seldom more than one room. In this room the people eat and sleep. Their bed is the ground, and sheepskins take the place of a mattress. The goats and sheep often keep in the house with the family.

How dark it is! The only light comes through the door, for there are no windows. That hole in the ground filled with ashes is where the cooking is done, and everything is of the rudest description. These people are mostly Mohammedans, but many of their customs are Christian. Marriage is a business transaction, a man always paying a price for his wife to her parents.

The Berbers are among the oldest of the African peoples; they have lived so long in this part of the world that no one knows just where they came from. They have fought again and again for their rights, having been conquered by the Phœnicians, Romans, Vandals, and Moors, before the French came.

They are now divided into many tribes, and are still to a great extent their own rulers. Each village is a little republic governed by its head men, who make the laws and appoint officers to carry them out. The people are proud of their tribes, and the man who brings disgrace on his tribe must leave it and his house is torn down. The Berbers are prospering under the protection of the French. They are advancing in civilization and wealth and send their children to French schools.

VI. ALGIERS

ALGIERS is one of the largest cities on the southern coast of the Mediterranean Sea, a full day's travel from Marseilles. It is an important port, and is the capital of African France. Our hotel is on a broad boulevard facing the harbor and the blazing white city rises in terraces up the hills to the rear. From our windows we can look out over the bay and the wide Mediterranean at the ships coming in and going out. The harbor is full of vessels. Many thousand steamers and coasters call here every year. There are Atlantic liners that stop on the way from New York to Naples and steamers from Japan, China, and India. There are also fast ships from France which bring the mails on their five hundred mile voyage across the Mediterranean in less than twenty-four hours. They give

The Algerian vegetable peddler is often a little girl with her wares in a huge basket on her back.

Algiers a daily communication with its mother country. There are more French ships than any of the others, for the chief trade of this country is with France.

But let us go down to the wharves and see something of the enormous trade that Algeria has with other parts of the world. The business, four fifths of which is with France, amounts to more than seven hundred million dollars a year. Back from the harbor are acres of warehouses with mountains of cargo piled up before them. Here is a great stack of cork bark. It is put up like cord wood. It will be shipped to the United States and Europe. Near it are hogsheads of wine, and at one side are piles of boxes of dates packed for Paris.

There are ships here from London taking off coal and putting on alfa grass, wheat, dates and wines. There are steamers from the United States bringing in cotton, meat, and other American products and many small boats from Spain, Italy, Greece, and other countries. As we pass a Yankee captain calls out "Good day" in a shrill nasal voice. He is the master of that sailing vessel just in from Boston with a cargo of salt fish, and next to his ship is a steamer from Argentina with jerked meat to be sold to the inhabitants of the Tell and the regions beyond it.

Leaving the harbor we go up into the city. The streets of the lower part are wide and well paved; the avenues are shaded by palms, and there are statues here and there. We pass the public buildings and then stop at the great mosque. It is an enormous white structure, covering several acres, built about a court in which there are trees and a fountain. The turbaned priest on the minaret is calling out the hour of prayer, and we take off our shoes and walk in. There are many Arabs, Moors, and other Mohammedans inside. Some are standing, some kneeling, and some bowing their

The Arabs are skillful in the manufacture of jugs, vases, and bowls of copper, beautifully decorated and carved.

heads to the ground as they go through their prayers. We notice that their faces are all turned the same way. They are looking toward the east, for the Mohammedan always prays with his face toward Mekka, which is in that direction. Outside in the courtyard we see long-gowned men washing their hands and feet.

We make our way up the hill. Algiers is built in the shape of an amphitheater, its streets rising terrace above terrace. The French quarter is down near the harbor. The Arabs, Moors, negroes, and other native Africans live higher up. Their houses are flat roofed, with white walls and with but few windows facing the street. Here the streets are narrow. Some of them are devoted to the bazaars, being roofed over with matting and walled with small stores in which men are sitting or standing, selling all kinds of goods. The shops are larger than in Fez, but nevertheless little more than holes in the wall, and the customers stand in the street as they buy. Each branch of merchandise has its quarter. One bazaar is devoted to the shoemakers. Here we see slippers and shoes, some made of bright-colored leather and turned up at the toes. Another street is taken up by the jewelers, and in a third men are selling the perfumery of which the Mohammedans are fond. We buy some attar of roses, a drop of which will perfume one's trunk for a month, and then go on to shops where beautiful carpets and rugs are sold. We stop at a café to drink some Turkish coffee. It is as sweet as molasses and almost as thick.

As we sit, we watch the strange crowd passing by. We are at a corner where we can observe the people as they go in and out of the bazaars and ride to and fro. The crowd is typical of Algiers, the meeting place of Europe and Africa. There are French soldiers in Zouave uniforms, and tourists from England and America in white suits and cork hats.

There are Spaniards, Italians, and French of all classes. We see Arabs in their long gowns, dark-skinned Bedouins (bĕd′o͝o-ĭns) just in from the desert, fierce-looking Berbers from the mountains, and turbaned Moors, Egyptians, and Turks. Every one has his own dress, from that Greek sailor in petticoats to the negro porter behind him wearing almost no clothes at all. There are women as well as men; French ladies in Parisian costume; Jewish girls in long, straight gowns of pink, red, green, or yellow; veiled Moorish women; negroes from beyond the Sahara; and rosy-cheeked Berber maids with bare faces. There are boys with shaved heads, in gowns and skull caps, and half-naked babies carried along in the arms of their mothers.

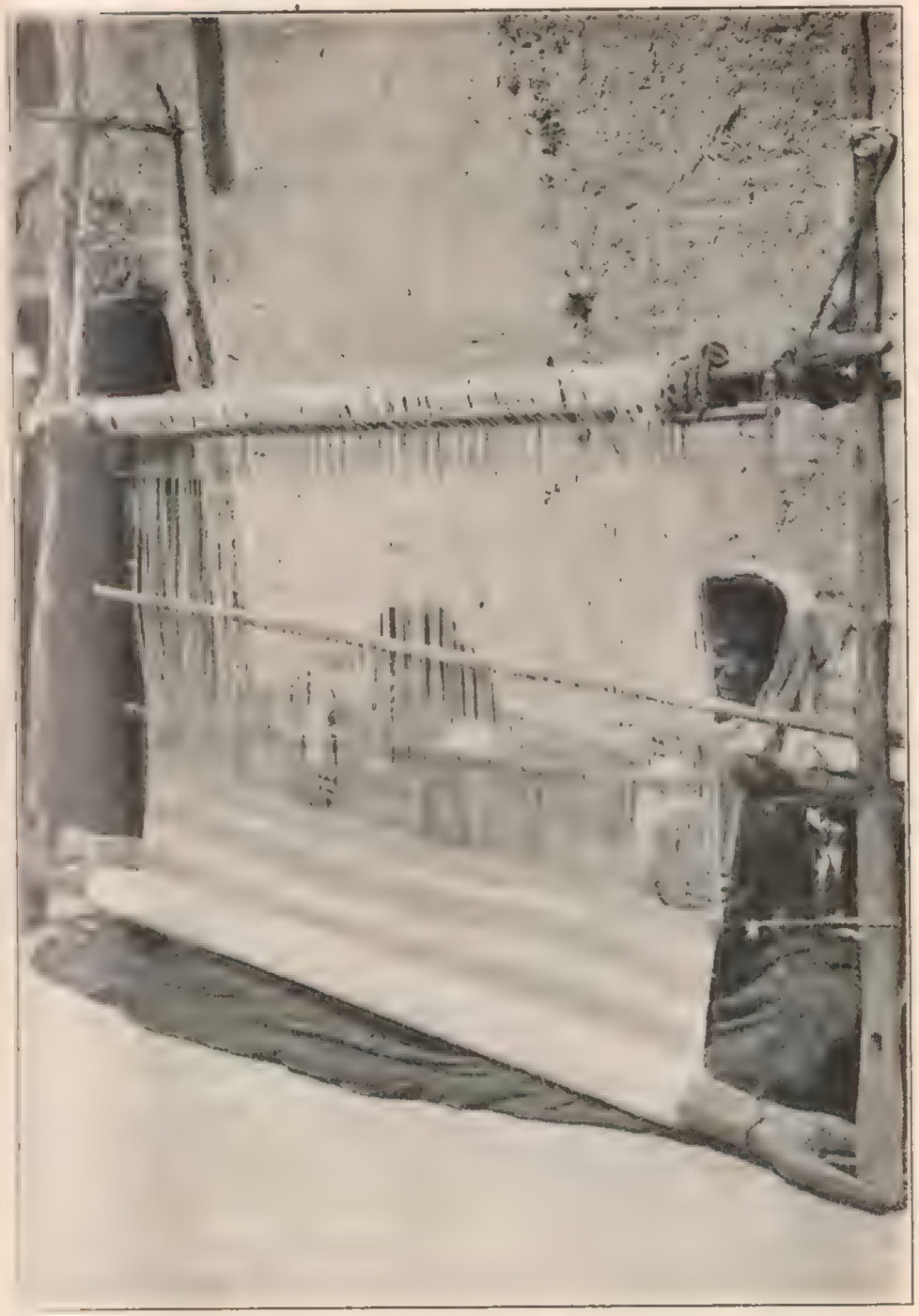
Leaving the café, we go into the streets inhabited by the richer Algerians. The doors of some of the houses are open, enabling us to look in. They are built around courts, in which fountains are playing, and over which matting is often stretched to keep out the sun. The floors of such houses are marble, and the walls are beautifully carved. The people often sit in the court and sometimes eat there. About the court are the kitchen, the bath, and the store-rooms. The usual sitting or sleeping rooms are upstairs, and above them are the roofs, where the women go on pleasant days to take the air and to gossip and chat.

We do not see the Mohammedan women. They have their quarters apart from the men of the family, and it would not be thought polite for boys to ask to go in. The faces of the women are seen only by their fathers, husbands, brothers or other near relatives. The women wear veils up to their eyes when out on the streets. At home they take off their veils, and usually go about barefooted or in slippers. The children of the richer classes are well clad. They are bright little ones, and seem to have as much fun as we do.

Algerian girls are often married at twelve or thirteen years of age, and at twenty an unmarried woman is thought to be an old maid. According to the Mohammedan religion a man may have four wives, but many of the Moors and Arabs have but one.

As we go through the city we find the people everywhere working. Algiers does a great deal of manufacturing. It makes four thousand carpets per annum and there are two thousand people who make slippers and shoes, turning out several million pairs in one year. The country has saw-mills and foundries, and during the World War it made shells and torpedoes which were shipped to France to be used in fighting the Germans. It is a land of forests and much wood-working is done. It has iron and other minerals and coal has been discovered in the desert to the south of it. Petroleum is said to exist in the province of Oran.

Leaving Algiers, we go two hundred and eighty-eight miles by railroad to Constantine (kôn-stăn-tēn′), in eastern Algeria. We travel for hours through vineyards, where the Berbers are at work picking grapes and making them into the wine for which the country is noted. The trip takes from seven in the morning till seven at night. Much of the way is across a plain, with ranges of mountains in view. We see Arabs plowing the fields, using donkeys, mules, and sometimes oxen or camels. The plows are crooked sticks shod with iron, and they appear small when drawn by the camels. A few of the rich farmers have American tools, and in one valley we see a gasoline tractor. On our way through the mountains we look in vain for the Numidian lions, so famous in the days of old Rome. They were caught here and carried to Italy for the gladiatorial shows. After all these centuries, however, the lion has almost disappeared from this part of the world.

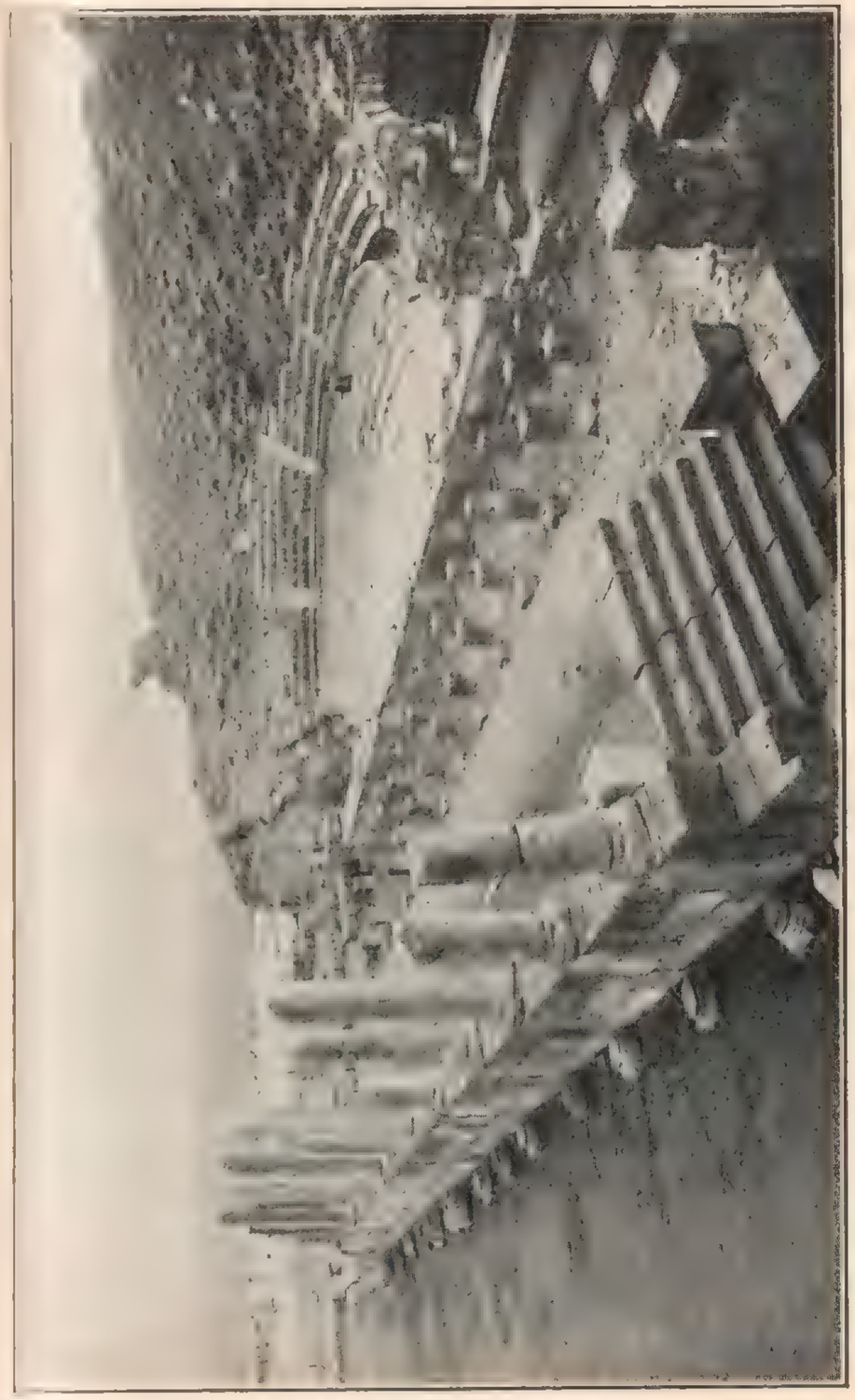


The native women of Algeria weave rugs on rude, hand-made looms.

The country is beautiful, especially in the mountains. We pass many natural wonders, and when we come to Constantine itself we look at it again and again, for we have never heard of a city like this before. Constantine stands upon a rocky plateau at an elevation of eighteen hundred feet above the sea. The plateau is only about two miles in circumference, and it is surrounded on all sides by a ravine, which is from fifteen feet to four hundred feet wide and in some places six hundred feet deep. Through the ravine a rushing river flows, and the rock itself upon which Constantine stands is connected with the mainland by a narrow isthmus much like the Natural Bridge of Virginia. Steel bridges have been built across the ravine, and we ride over one of them into the city. More than sixty-five thousand people live upon this rock and do business here.

Constantine is the commercial center of eastern Algeria, although it is about fifty miles south of the Mediterranean Sea. It is noted for its embroideries on leather, its shoes, saddles, and harness, and also for its haiks and burnooses, of which more than one hundred thousand are made every year. The city has its French and native quarters. It has a strong garrison, for it is a natural fortification, and there are many soldiers marching about. We call upon the governor, visit the great mosque, and spend some time in the bazaars buying curios to send to our friends.

Leaving Constantine we go south to visit Timgad, one of the wonderful ruined cities of Roman Africa which the French have dug out of the sand. Timgad is much like Pompeii in that it was covered for years and has only recently been brought to light. The town was a Roman city founded shortly after Pompeii was destroyed by Vesuvius. It was three times as large as Pompeii and it had



The theater at Timgad once seated four thousand people. The stage was just behind the pillars, and the orchestra sat in the half circle below the seats.

beautiful houses, a great theater, paved streets, and stores of all kinds. We examine the marble columns now thrown to the ground. We walk over marble roads looking at the deep ruts in the flagstones made by the wheels of the chariots, and stop at the stalls of a butcher shop where the old Romans bought their meat from marble counters. We visit the public baths which had chambers for steam and vapor, cold plunges, and large swimming pools. We stop a while in the forum where the public business was done, looking at the stone platform where the orators delivered their speeches. Northern Africa is covered with the ruins of the Romans, and this is only one of many we shall see in our travels.

VII. IN TUNIS

A RIDE of two hundred and eighty miles from Constantine brings us to the city of Tunis, the capital of Tunis, another great country under the protection of France. Tunis is larger than the state of New York, but its population is not as great as that of our city of Philadelphia. The land is much like Algeria, but very dry and subject to droughts. Its inhabitants are mostly Kabyles and Bedouin Arabs. The people are chiefly Mohammedans. There are many Frenchmen and Jews and also Italians and others from the islands of the Mediterranean Sea.

The government of Tunis is like that of Morocco. It has a native ruler called the Bey, but most of the high officials are French and the Bey must do as they direct. During the World War the people fought bravely with the French against the Germans, sending sixty thousand soldiers and nearly thirty thousand workmen to France. During

Many women of Tunis do not consider themselves beautiful unless they are fat.

that time Tunis and Algeria aided in feeding the armies and providing much of the minerals needed in warfare. In all, France had more than a million men from her colonies fighting in the World War.

On our way from Constantine to the city of Tunis we ride for miles through the mountains, now and then crossing fertile valleys and plains where there are great olive orchards, groves of oranges and lemons, and vineyards loaded with grapes. The olive-oil industry is very important. There are more than two hundred oil factories and the exports amount to millions of dollars a year.

Going on eastward, we pass many fields of wheat, barley, corn, and oats, and learn that the chief business of the country is farming and fruit growing. There are several millions of acres in wheat and barley and more than twelve million gallons of wine are made every year. The farming is rude and we often see an ungainly camel dragging a plow.

A little south of our route are high plains fitted for pasture upon which tens of thousands of cattle and hundreds of thousands of sheep and goats are fed. Tunis has about one hundred thousand asses and mules, and more than one hundred thousand camels. The camels are found largely in the desert which comprises the southern part of the country.

Tunis is also one of the lands of the date, a fruit which is grown in the oases. The crop of dates is so large that Tunis could send four pounds a year to every family in the United States and have some to spare. We shall see the date palms when we go down into the desert.

Tunis is famous also for its minerals. The country is undeveloped, but has large mines on the edge of the Sahara and in the mountains, and it is now exporting zinc, iron, lead, and phosphates. Phosphates and iron are the most

important. Shiploads of alfa grass also are sent to England and France where it is used for the making of paper. The forests have millions of acres of cork oak and pine trees, and much cork is exported.

We ride for miles through the woods as we go on toward the east. When our train stops at a station, Bedouin women bring fresh water and fruit to the cars, and we buy oranges, figs, and dates to eat on the train. The track winds in and out through the mountains, now crossing small river valleys and at last reaching the wide plain spotted with brackish lakes upon which the great white, flat-roofed city of Tunis lies.

Tunis is situated on an isthmus between two shallow salt lakes not far from the Gulf of Tunis, giving it an outlet to the Mediterranean Sea. It is connected with the Gulf by a ship canal which brings the steamers right up to the city and forms an excellent harbor. The city proper is almost surrounded by walls, and at its back are hills covered with villas and gardens. We ride in automobiles through the wide streets from the railroad station to our hotel. There we leave our baggage and start out for a trip through the streets. Each of us picks out the best donkey he can find, and dark-skinned donkey boys run behind, keeping the little beasts on the go as we move from one part of the town to another.

The city of Tunis has nearly two hundred thousand people, most of them Mohammedans, but there are also Christians and Jews. The town reminds us of Bagdad as described in the Arabian Nights. It has great bazaars, and the crowd is clad mostly in turbans and gowns. There are mosques everywhere and we must be very careful not to do anything to offend the Mohammedans.

We make our way through the French quarter which

reminds us of the foreign parts of Algiers, and then direct our donkey boys to show us the Maltese and Jewish quarters after which we ride on to the bazaars.

How interesting they are! They are larger than those of Fez, and are as strange as those of Constantinople or Cairo. The streets are roofed over, and we go through covered passageways lined with cave-like shops and filled with Arabs buying and selling. The roofs are of stone coated with whitewash. The streets look like mighty vaults extending on and on as far as we can see. There are grated holes in the roofs through which the light comes. There are many side streets to the right and the left and each trade has its own quarter filled with cells in which the Arabs are making goods and selling them to their customers. There are bazaars of coppersmiths, booksellers, and tailors. Here they make shoes of red and yellow leather and there is a place where nothing but perfumes are sold. Here one may buy essence of jasmine or of violet or verbena, each worth its weight in gold; indeed a quart flask of the attar of roses would bring more than enough to pay our passage back home. Some of the perfumes are so valuable that the merchant measures them out drop by drop, counting the drops by letting them flow over a bit of cotton.

Now notice the people. See that strange creature all dressed in white with a black veil hiding almost the whole front of her person. Now she holds up the veil with both hands and peeps out below it, making her way through the streets without showing her face. The fat woman a little farther on in a high white cap and long sack and trousers is a Jewess. Her face is unveiled and her excessive plumpness is counted a sign of beauty and wealth. The man behind her with the heavy black rope tied around his head is an Arab, and that hooded man is a Moor.

Many of the streets in Tunis are arched over to keep out the hot sun.

See how that gray-bearded Turk in the black gown, green turban, and red slippers is scowling at us. He is a Mohammedan sheik, and he does not like Christians. Green was the favorite color of the prophet Mohammed, and the sheik has the right to wear that turban because he has been to Mekka, the holy city, where Mohammed was born.

There are many Berbers. That tall gaunt Bedouin has just come from the desert, and those two negroes were probably brought across the Sahara in caravans and sold in Tunis as slaves. There are also olive-skinned Italians and Greeks and rosy-cheeked people from the island of Malta.

The streets are narrow, and we are often crowded close to the walls. Now we are almost crushed by a camel with a great load of wood, and now by a donkey carrying fruit or dirty pigskins filled with oil. We are jostled by the mules of rich Arabs in turbans and gowns, and have to look out for the blind men who pick their way about with their staffs. In all parts of northern Africa there are many blind people. The sun is so dazzling that it hurts the eyes, and flies and other insects cling to the eyelids, sometimes causing the loss of sight.

Now we stop at the stand of an Arab who sells sweetmeats and candy, and now at a booth where a long-gowned man is frying meat and selling it hot from the fire. Here a letter writer is working away. Beside him is a Jewish money changer, and farther on are several fruit peddlers with fresh dates, oranges, and figs.

We often stop to price curios to take home to our friends. The turbaned dealers ask us to drink coffee with them. We sit cross-legged on the floors of their stores and sip the rich brown liquid as we bargain together.

One of the merchants has been to America. He is friendly, and at his invitation we go with him to his house. We

follow him in and out through the winding streets, and stop at last before a square white building in which the windows are covered with lattice work. The front door is richly carved. It opens at the knock of the merchant, and a black manservant appears.

We first enter a court surrounded by marble columns, behind which are the rooms of the house. There are soft rugs on the floors and wide divans along the walls. Our host motions us to take seats with him on the divans in Oriental fashion. We do so, and by and by black-skinned, white-gowned men bring in trays of candies and sherbet. The latter is a delicious sirup almost as thick as molasses, which we eat with a spoon.

By and by our host's little sons come in, and he presents them to us. The boys cling to their father's knee as they look at us with wondering eyes. He caresses them, and we see that Mohammedans are quite as fond of their children as our parents of us.

At the end of our call we go to the Jewish quarter. Here the men wear skull-caps and long gowns. Most of them also wear locks of hair alongside their ears. At home the women wear trousers, leaving off their street gowns, and on dress occasions some have velvet pantaloons decorated with silver or gold coins and bangles. A girl may thus wear her whole fortune on her clothes. Is it not strange to see men in gowns and women in trousers?

On our way back to the hotel we visit some of the schools which have been established by the French. They are to be found here and there throughout the country. Tunis has also a Mohammedan university in the great mosque and over twelve hundred primary schools, where young Arabs and Moors study the Koran, as well as the French language and other subjects. The government has estab-

lished many schools throughout the country for the French and Italians.

We have already learned the importance of northern Africa in the history of the world. Tunis was a colony of the Phœnicians, twelve hundred years before Christ, and within twelve miles of the city, facing the Mediterranean Sea, was Carthage, their most famous city. Carthage was so large that the wall around it was twenty-three miles long. There were towers in the wall and casements, in which were stabled three hundred war elephants and four thousand war horses. The city was situated on a beautiful bay divided into two harbors; it had docks for several hundred merchant ships, and its vessels of war had iron beaks which could be driven into the ships of the enemy.

For a long time there were wars between Carthage and Rome. The Romans found the Carthaginians so brave that they decided that there would always be trouble unless Carthage was destroyed. After many defeats they succeeded in conquering the Carthaginians and burning their city. They even plowed up the ground upon which it stood and made it into pastures, where their sheep and goats fed, watched by slaves. Later still, Tunis and Algeria produced so much wheat that they became known as the granary of Rome.

This place, however, was well fitted for a city, and as time went on the Romans rebuilt Carthage, and it again became great. It was afterward torn to pieces by the Vandals, and finally destroyed by the Mohammedans.

The site of this ancient city is only a half hour away by electric street car, and we ride out for a look at the ruins. The vast buildings have all disappeared. Hardly one stone has been left upon another, except in the old cisterns which supplied the ancient city with water. These were first con-

structed twenty-five hundred years ago and they fed Carthage for centuries. The French have repaired them and they now form the water supply of the villages and towns about. The cisterns are thirty feet deep and something like six hundred feet long. As we look at them, the engineer in charge tells us that they hold six hundred thousand gallons. Near Tunis we see the ruins of the great aqueduct which brought water to Carthage from springs about eighty miles away. The water passed through underground canals, and over valleys, and above the beautiful arches that upheld the aqueduct, to Carthage. Much of the old masonry is now in ruins, and iron pipes carry most of the water.

We are guided among the ruins of the ancient city of Carthage by a smiling boy in a robe and turban.

We visit the museum at Carthage, looking at the treasures which have been found in the ruins. Among them are many clay lamps and casks of all sizes, as well as beautiful jewelry and razors and spectacles. There are also perfume boxes,

The sand dunes in the Sahara are formed by the winds, and are constantly changing.

hairpins, mirrors and trinkets, and golden necklaces and rings of beautiful workmanship.

Before leaving the ruins we pick up some bits of marble and pottery to take home as relics; and as we do so our guides tell us that the stones of ancient Carthage were used to build Tunis and Rome. For ages, ships from Italy came here and carried away the marble columns, mosaic floors, and beautiful tiles. As we wander along the shores of the bay we try to picture to ourselves the Carthaginian boys and girls who sported here ages ago, and wonder whether New York or London may not at some time be plowed up into farms as Carthage is now.

1. What three countries of North Africa are dependencies of France? Which is the largest? Which the smallest? Compare Algeria with an American state; with your own state.
2. What affair did we have with the Dey of Algiers? Why? When? How did Algeria become a possession of France?
3. What are the two chief ports of Algeria? Visit Oran and tell what you see. Describe Algiers. What are the chief exports? The chief imports?
4. With what European country has Algeria the most trade?
5. What important city is in eastern Algeria? Describe it. What ruins there remind us of a buried town near Mt. Vesuvius? Compare the two places. (See Carpenter's "Europe".)
6. What is the capital of Tunis? Take a walk through the streets and tell how business is done. What ancient city is located near Tunis? To what two great nations did it belong?
7. Name the chief peoples of Algeria and Tunis. What is the principal religion of the two countries?

VIII. THE WORLD'S GREATEST DESERT

TO-DAY we shall begin our travels in the greatest desert on earth. The Sahara is so large that we can get a general view of it only by using airplanes. For ages most

of the travel upon it has been by caravans of camels, and even now there are only two or three places where railways have been constructed far down into the sand. One of these is along the boundary between Algeria and Morocco. That road is a military one. It extends several hundred miles to the southward, and a little later there will probably be an automobile road running from the southern end of it on from oasis to oasis until it reaches Timbuktu and the Niger River. Even now it is possible to cross the Sahara by automobile.

Already airplanes have made the trip across the desert from north to south. The expert flyers tell us the most important part of our outfit will be gasoline, water, and food. We shall have to plan out our tour so as to strike the important oases, and locate level places of smooth rock or sand where our airplanes can light and have a good place to start up into the air when we leave. We can get fresh water in the oases, and also oranges, dates, figs, fresh meat, and bread. During our travels we shall now and then send our airplanes on ahead, and take short trips upon camels to see how the people live on their caravan journeys and how business is done.

But first let us get a general view of the Sahara. It belongs to the long belt of deserts which extends throughout Asia including the highlands of Gobi, Tibet, Persia, and Arabia. In western Arabia the dry country is broken by the Red Sea but it begins again in Africa and goes clear across that continent to the Atlantic Ocean. The stretch of sand is longer than the distance from Boston to San Francisco, and is broken only at the east by the long fertile valley through which the Nile runs and at the northwest by the Atlas plateau over which we have been traveling.

The Sahara is so vast that if four mighty giants could lift

The houses of an oasis village are plastered with mud. At the right, peddlers are selling their wares in the open street.

it up at the corners, and drop it down upon Europe it would cover that continent. If they should spread it over the United States it would hide the whole of our country and extend on into Canada and down into the Mexican Gulf. In some places at the north the sands stretch out to the Mediterranean Sea, and on the south they are lost in the Sudan and the tropical lands which reach to the Gulf of Guinea.

This vast waste is a plateau whose average elevation is from two to three times the height of the Washington Monument. It is not all level but has rocky mountains and valleys and rock-covered plains or steppes. It has sand dunes

or hills as high as a building of twenty or thirty stories; and underground rivers with here and there springs where the water has made fertile oases. Round the edges of the desert there is a scanty growth of grass and trees, and here and there throughout the arid interior, the grass springs up and gives pastures for a short time. The soil is exceedingly fertile, and a slight rain brings a carpet of rich grass and flowers.

If the Sahara were all waste there would be no traveling across it. But there is a scanty vegetation along the northern and southern edges, furnishing pasture for camels and sheep, and during the winter and spring some other parts are so green that the wandering Arabs drive their animals there to feed. In addition are the oases, found at wide distances apart here and there in the midst of the sand.

The oases are islands of green in the ocean of sand. They are made fertile by the water from springs, wells, underground streams, or waddies, hollows in the beds of rivers that are dry most of the year. In some of the waddies are stunted trees, and on the desert itself one often finds ragged plants bristling with thorns. The oases have date palms, and lemon, orange, peach, apricot, and other fruit trees; they grow wheat, barley, vegetables, and beautiful flowers.

The oases are the only inhabited parts of the desert and the main traveled routes are the paths from well to well and oasis to oasis. There are so many of these fertile spots that if all could be brought together they would form a territory of eighty thousand square miles, or a fertile country twice as large as Kentucky. This is about one fortieth of the Sahara so we may say one acre in every forty of the desert is green. The oases are large or small according to the supply of water they have. One oasis has so many springs that it can irrigate eight million date palm trees,

There are many passes in the Atlas Mountains leading out into the hot barren desert.

but as a rule the average oasis has only a few acres and a few huts.

It is the lack of moisture that makes the Sahara a desert. Its soil is, for the most part, so rich that, where watered, it produces as well as our western prairies, or India, Siam, Hawaii, and the West Indies, which are luxuriant, well-watered lands in about the same latitude.

"But why is this great tract without water?" we ask.

The moisture-laden winds from the northwest are dried by the cold Atlas Mountains, and those from the south and east are already dry before they reach the Sahara. In the

winter the winds blow from the desert outward, while in the summer, when they blow inward, the sun acting upon the sand and rock makes the air so hot that it evaporates the moisture before it can form into drops and fall as rain.

The result is that the winds of the desert are dry winds, and the storms, which are terrible at times, are sand storms, which dash themselves against the rocks and scour them, making more sand. The air is hot in the daytime, but cold at night. This expands and contracts the rocks so that they split, wear out, and gradually fall to pieces. Thus the face of the desert is constantly changing. If a few showers of rain fall anywhere, plants spring up, and for a time there is a bed of green dotted with flowers. In some places, water collects under the sand, so that artesian wells can be made and irrigated oases formed by them. The French have many such wells in the arid lands south of Algeria, and have thereby made fertile spots, upon which groves of date palms and other things are growing. The land here is so rich that the Arabs say, "If you plant a stick in the desert and water it, you will soon have a tree."

About three fifths of the desert belongs to France, and the rest to Spain, Italy, and England. Spain has a tract along the Atlantic Ocean south of Morocco and England controls the low sandy wastes near the Nile. Italy has the territory south of Libia. The remainder is under the protection of France.

IX. LIFE IN THE OASES

WE start on our tour through the air by flying southward from Tunis over the ports of Susa and Sfax (sfäks) on the Mediterranean Sea, passing over the ruins of

The amphitheater at El Djem seated sixty thousand spectators. It was surpassed in size only by the Colosseum.

El Djem, an amphitheater two thirds as large as the Colosseum at Rome, on the edge of the desert, and then turn to the west and move high in the air to the oasis of Biskra (bĭs′krȧ), which is almost directly south of Constantine, Algeria. Biskra can be reached also by a railway from Constantine. The oasis is situated on a low plateau near the mighty walls of the Atlas Mountains, whose high dry peaks rise above it to a height of about a mile and a half. It is watered by springs and by a little river which is dry a part of the year.

There are many other oases near by, dependent on Biskra, and a town has grown up here which has electric lights, motor cars, and comfortable hotels. In addition are the

mud-walled houses where the Bedouins live. Most of the oases are devoted to date trees but in addition there are vegetable gardens and fields of wheat, oats, and barley all watered by the springs and the wells which tap the underground river.

There is a good landing place not far from the city. We swoop down with our planes and walk into the town. How delightful it is and how curious! We are in the midst of the desert, in a green valley so small that we can walk from one end of it to the other in an hour and across it in fifteen minutes or less. All about the valley is dry barren sand. We can see the bare yellow Atlas Mountains away off at the north and over the sand here and there the palm trees of other oases cut the horizon. Biskra itself is delightfully green. It has thousands of date palms, with olive groves and orchards of orange, lemon, apricot, and other trees under them. In many places vegetables are growing below the fruit trees, so that there are three crops, one rising above another on the same ground.

The oasis is watered by springs. It is divided into little farms, each with a mud wall about it, the farmers living in a city in the midst of the oasis. Here and there is a well out of which the water is raised by creaking wheels, moved by camels, and emptied into troughs, which feed the ditches that go through the fields. Each farmer has the right to a fixed amount of water.

The town of Biskra is the seat of government of the territories which the French own in the Algerian Sahara. It has many oases connected with it and its population consists of Frenchmen and Italians, mixed with Arabs, Bedouins, and Moors. The place is a great resort on account of its excellent climate and is more like the towns of Algiers and Tunis than the other oases settlements we shall visit.

The chief streets are wide and well paved, and there is a park where the band plays every afternoon. There are some French stores and hotels as well as Arab bazaars and all the surroundings of life in the desert. The place is a gay one and during the season it has races in which horses, donkeys, and camels take part. The racing camels can go about seventy-five miles in a day. They are so tall and lean that they seem to be all legs. They are better formed than the freight camels of the caravans which make only two or three miles per hour.

This Bedouin girl, although a Mohammedan, does not wear a veil. Her ornaments are gold and silver.

We are interested in the natives of the desert. Many live here in Biskra; some of them are strangers who have come by caravan from other oases. Some of the Bedouins are jet-black and the men are fierce looking, straight, and well formed. The young women are handsome. All are Mohammedans, but the women for the most part are unveiled. They dress in gay colors and wear large earrings, bracelets,

and anklets of gold and silver. Some have just come in from the desert, and we frequently meet a woman riding a camel, bobbing up and down as she goes through the street.

Biskra is an important trading center. Caravans come here from all parts of the Sahara, bringing dates and other products from the oases to be shipped off to Europe, and taking back all sorts of goods in exchange. We see long lines of camels, loaded with dates, swinging their way through the streets, and we learn that dates are one of the chief products of this part of the world. An oasis is valuable according to the number of date trees it will support. There are many thousands of such palms in Biskra; and so many dates are brought in every year that if they were evenly divided, there would be enough to give a big handful to every boy and girl in the United States.

We stroll about the oasis, talking through our interpreters with the Arab farmers and learning how dates are grown. We pick some from the younger trees and bite into them. The ripe dates are delicious, but the green ones pucker our mouths like unripe persimmons.

The date palm, although it thrives on the dry air of the desert, must have plenty of water about its roots or it will die. The Arabs call it the queen of trees, and say it must have its head in the burning sun and its feet in running water. For this reason the orchards are irrigated, and ditches are dug around the trees to keep the roots moist. When other crops are planted under the palms, the whole field is flooded.

The date tree is usually grown from one of the suckers which sprout from the trunks of the older trees. The suckers are taken off and planted. If well watered, they strike root at once, and within four or five years begin to have fruit. They are in full bearing at about eleven years,

Date palms are found throughout most of northern Africa. The fruit grows in bunches at the base of the branches.

after which they will each yield a hundred pounds or more of dates a year for about a century or more.

In the Sahara the date palm begins to blossom in April, great bunches of beautiful flowers sprouting out of its top. After a time the blossoms fall, and the green dates appear. As the summer goes on, they change to a reddish or yellowish color, and grow brighter and brighter until they are ripe, when the yellow dates are the color of amber and the red dates are brownish or black. As the fruit ripens, the flesh, which was unpleasant to the taste, changes and becomes so sweet that in some varieties more than half of it is pure sugar.

The dates shipped to our country are sweet dates. They are allowed to dry on the trees. They shrink as they dry, and after a week or so are ready to be picked and packed for the market. Dates are exported in bags or long wooden boxes, the choicest varieties being repacked before they go to Europe or the United States.

Dates are of as many varieties as apples. More than one hundred different kinds are grown in the Sahara; some are hard, some soft, some sweet, and others so dry that one cannot bite into them. Those exported to the United States are of the soft variety; they are so full of juice that it is often drained off before the fruit is packed. The date juice forms a thick sirup, which is eaten as a preserve under the name of date honey.

Other dates do not dry readily, although they contain less sugar; these might be called table dates, as they are often eaten fresh from the trees. Another and very important variety is the dry date. This contains but little sugar, and it is not soft or sticky when ripe. It is allowed to remain on the tree until it drops, and when stored away in a dry place can be kept for years. Dry dates are almost

unknown outside the Sahara, though they form one of the chief foods of the people. They might be called the bread of the desert. They are eaten by man and beast, being often fed to camels and even to dogs.

We delight in the ripe dates and find we can eat great quantities of them and still long for more. They are grown in all the oases and will form a part of our food for some time to come.

Taking our airplanes we ride south from Biskra to the oases of Wargla (wär′glä) and Tugurt, and then soar over a wide waste of rocks and sand to the border of Morocco. We land at Beni Ounif, a town on a little railroad that comes from Oran hundreds of miles down in the sand. Beni Ounif has a garrison of French soldiers and we can get a guard here which will go with us on horseback to visit the oasis of Figuig (fē-güēg′) not far away. Figuig is a great caravan center. It has many springs and large date plantations and is surrounded by walls. There are seven villages in the oasis and a network of waterways keeps everything green. We can see the quivering leaves of the date palms rising high about the mud walls long before we come to the oasis and when we pass through it, we find orchards of apricots, peaches, and pears mixed with the palms. There are all kinds of vegetables and green patches of grain.

We spend some time in one of the villages, being careful not to offend the Mohammedans as we wander through the streets. The town is made up of mud houses, some of which have two and three stories. The houses have no windows facing the streets and their low doors are of palm wood. Many of the streets are roofed over and houses are sometimes built above them. The roofs keep off the hot sun. The bazaars consist of cell-like stores similar to those in the side streets of Fez and Tunis.

Racing camels can make ten or twelve miles an hour and sometimes a hundred miles a day.

The town of Zenaga, which has about three thousand Arabs and Moors, is much like the village except that its streets are wider and there is a little court in the center filled with camels, which have brought in wool, skins, and other products for sale from the oases near by. There are long lines of camels coming in and going out and we decide to make a caravan trip out into the sands.

This trip is arranged by the French officials, who go with us as we pick out our camels, telling us how to know the best riding animals. We try the different beasts again and again until we get some easy riders which are so fleet they can travel many miles in one day.

X. TRAVELING BY CARAVAN

WE have left the sands and oases of the western Sahara and are now bound southward through the central part of the desert. Each of us has his own camel. Our caravan is as long as a circus parade. At the front, on fast, racing camels, are the chiefs of the tribes that make up our party. They have guns in their hands, and are on the watch for the robber bands so common throughout this great desert. Some of them are camel police under the French government, which does much to keep order in the desert. The camel police are stationed at every large oasis, and those with us are mounted on beasts that can go ten or twelve miles an hour without tiring. They patrol the country, moving from oasis to oasis, guarding the main caravan routes.

Behind come the freight camels, scarred, dingy, and sullen, heavily loaded with all sorts of merchandise, bound

The Camel Police Corps are used by the French government to keep order in the desert.

in with ropes. Long-gowned Arabs, so shrouded in white or brown that we can see only their faces, are swinging to and fro on these ungainly beasts. There are native women and children in our party, and among them a dark-skinned mother holding a baby. People are walking as well as riding and the dogs are trotting along with the crowd.

Some of the camels are loaded with jugs of oil, crates and boxes of cloth, and bundles of dates. We have a goodly supply of food on the freight animals hired especially for us, and also some skin water bottles. The water keeps cool, owing to its evaporation through the skin, but it tastes of the bag and sickens us so that we can hardly drink it without making wry faces.

Our route through the desert is from oasis to oasis. There is neither path nor road, and our guides make their way from one watering place to another by the stars, or by rocks, hills, or other marks on the landscape, arranging the marches so that we have a well or spring by which to camp almost every night. The camels are made to kneel down when we stop and their loads are taken off. Their feet are carefully examined to see if they have been torn by the rocks, and if so, the skin is sewed together or patches of leather or rags are wrapped about the feet. They are then hobbled by tying one leg up at the knee to keep them from running away. We next pitch our tents and smooth the soft sand out for a bed. A fire is made from the wood we carry with us, and we cook our meals over the coals. We arrange the camp so as to be ready to fight if attacked, and go to bed with our guns within reach.

During our travels it is sometimes terribly hot. The sun beats down out of a cloudless sky. It strikes the white sand and throws the glare back into our faces. The camels raise a thick dust, and we wipe our blue spectacles again and again. We fasten cloths about our heads, with slits for the eyes and nose. We laugh at one another, we all look so strange.

Our camels jolt us, notwithstanding they are good riding animals. They swing along with a motion like that of a ship on the waves. We grow seasick, but this passes off, as in time does the terrible pain at the waist, caused by our bobbing up and down all day long. We start early each morning, and at noon are glad to stop under the shadow of some precipice or rocky hill to rest.

One day our camping place is surrounded by red sand and on another we go over a tract of small pebbles—red, brown, white, and black. The stones are smooth and shiny,

The camel kneels as he is loaded with kegs of water for a trip across the desert.

and we want some to carry back home. While resting we have taken off our shoes and stockings and start to walk over the pebbles in our bare feet. We jump back with cries of pain. The stones are as hot as fire; it feels like walking on coals.

Now we are starting again, the freight camels grunting and crying as they are forced to get up with their loads. They growl as they move onward, and are so angry that we fear to go near them lest they should bite.

How oppressive the air is! There is not a breath stirring. But look! See that black cloud coming up away off in the east. How fast it grows! It has already shrouded half of the sky. It is bringing a wind with it which throws the sand into our faces. The sand storm increases. Some of the grains are as large as peas. It is a veritable stone hail. We are in the midst of one of the great storms of the desert.

Our Arab friends have stopped the caravan. They have made the camels kneel on the sand, and direct us to lie down with our faces to the ground by the side of the camels and wait for the storm to blow over. Now the clouds have covered the heavens. The rain of sand hides the sun. We dare not open our eyes. The camels are moaning; they thrust their noses into the ground, and blow out sand as they breathe.

See, it grows lighter. The storm is passing. It is gone, and the sky is again bright. We rise and shake ourselves, the sand rolling off as though it were snow. Some of the grains have got in at our collars, and, as they move about over our bodies, they make us so uncomfortable that we sit very uneasily for the rest of the day. We are reminded of the girl in the fairy tale who felt a pea through seven feather beds. In our case the peas are sand bullets, and they lie close to the skin.

The Sahara has frequent storms of this kind. It has some which last for days, when the air is intensely hot and the sand blows into every crack and crevice of the homes on the oases and almost buries the caravans moving over the desert.

The best time for traveling is after the sun has gone down and the stars and moon rise. Then the temperature rapidly falls, and it soon becomes so cold that we put on our overcoats and are glad to throw a blanket over our legs. The air is now fresh and bracing. It is clear, and we can see the whole dome of the sky. How brightly the stars shine and how big the moon seems! They appear to be closer to the earth than at home.

Our guides seem better natured at night, and tell us all sorts of stories of life on the desert. They describe the rich oasis of Tafilelt in the western Sahara, talk about Chad

(chäd), the great swampy lake in the south, and a terrible, stony, waterless wilderness not far from our route, which requires days to cross.

They speak of the wonderful caravans that go from Fez in Morocco to Timbuktu (tĭm-bŭk′to͞o) in the Sudan, saying that some of them have a thousand camels guarded by five hundred men, and that a caravan often carries a fortune in goods. These caravans take all sorts of merchandise from Europe across the desert, and bring back ivory, gold dust, ostrich feathers, gums, and wax.

An important part of the trade of the western Sahara is salt from the mines of rock salt in that region. The salt is dug out in large lumps and trimmed into blocks about a yard long and half a yard wide, in which shape they can be easily loaded upon camels. The salt miners live not far from the mines. They build their homes of blocks of rock salt, roofing them with camel skins; they rely for their water on an oasis some distance away.

The Arabs describe the different caravan routes across the Sahara, showing us that the best of them are as well known as our highways at home. These routes cross the desert from the ports on the Mediterranean Sea to the chief centers of population in the Sudan. There are five routes especially noted, those which connect Morocco, Algeria, and Libia on the north with Timbuktu, Sokoto, (sō′kō̆-tō). Kano (kä-nō′), and other places on the south. In a trip like ours the freight camels go no faster than a man can walk, and it would take us about three months to travel from one side of the Sahara to the other. Now the French go from Biskra by automobile and airplane southward to the Sudan, and thus connect that vast country with the Mediterranean Sea. With the improvements sure to come by air and by rail, much of the caravan trade will disappear.

As we go on we pass caravans loaded with dates, wool, and other products on their way north. Each is guarded by Arab warriors on camels, for it is dangerous to travel through the desert unarmed.

From day to day we meet men of the different peoples who inhabit the Sahara. They are divided into three classes. First are the tribes who live in tents of camel's-hair cloth and go from place to place, driving their camels and other animals with them; second are the Tuaregs (twä′rĕgs), bands of warriors, who might be called the robbers of the Sahara; and third, the inhabitants of the oases. The first two classes are wanderers; the third, the oases people, are farmers, who cultivate all sorts of vegetables, tobacco, cotton, grain, and barley, as well as date palms and other fruits.

The natives of the Sahara are almost all Mohammedans, controlled by their sheiks. We find mosques in the larger oases, and see the Arabs of our caravan saying their prayers five times a day. They kneel down in the desert with their faces toward Mekka, and pray to God in the name of Mohammed.

As we wind our way in and out across the sands, we see a band of Tuaregs now and then. We treat them politely, and as our force is a large one they do not attack us. The Tuaregs are supposed to be the descendants of Berbers who in times past were crowded out into this wilderness from the fertile north lands, and who now make robbery and brigandage their trade. They are scattered throughout the Sahara and are noted for their cruelty, cunning, and quarrelsomeness.

We can easily distinguish the Tuaregs long before they come to us. We know them by their fast camels, their odd costumes, and their weapons. They have swords and lances, and their clothes make them look more like women

than men. Every warrior has a black veil over his face which hides all but his fierce dark eyes. He does not take his veil off except at night, and some of the chiefs are said to wear their veils night and day. He has a red cloth cap with a black tassel, a long white shirt with a black blouse embroidered with gold or silver, and wide Turkish trousers.

The Tuaregs usually attack caravans when they are camping about the wells, or at an oasis when the camels are scattered. They sometimes come in disguise and hire out as guides, so that they can join in surprising the caravan when their fellows come up.

They are Mohammedans, but are not strict in keeping their religion. They seldom have more than one wife each, and the women do not wear veils. Their chief wealth is in camels and horses. They rear the finest of animals, treating them like children rather than beasts. The baby camel is often brought up with the children; it sometimes sleeps in the tent, and even eats with the family.

Traveling onward we come upon an encampment of Bedouins, one of the tribes which wander from oasis to oasis with their camels, living in tents. The women grind some meal for us and give us cakes and bread and couscous, a dish of millet and meat which is one of their favorite foods. They are very polite, and we enjoy talking with them through our interpreter.

At one camp the chief asks us to dine with him. The cloth is laid on the sand, and we sit down upon cushions about it. Each of us has a spoon and knife, but no fork. We see that our host eats with his fingers, and we do likewise. The food is highly spiced, and some is so hot with red pepper that it brings tears to our eyes. The chief dish is a kid roasted whole. It has been cooked on a pole running through it, being thus held over the fire. It is brought to the tables

The Tuareg men wear veils and flowing robes. They belong to one of the most warlike of the desert tribes.

with the pole still inside it. We each cut off a slice and tear the meat apart with our fingers. From time to time, during the meal, sweets are brought in; and at the close coffee is served in little cups not bigger than half an eggshell. The coffee is as thick as molasses and almost as sweet.

1. Where is the Sahara? To what great strip of deserts does it belong? Compare it with the desert of Arabia (see Carpenter's "Asia"); with the desert of South America (see Carpenter's "South America"). Compare it in size with Europe; with the United States.

2. What is an oasis? What proportion of the Sahara is composed of oases? Where are they situated? Make a visit to an oasis and describe it. Locate Biskra; Figuig; Timbuktu; (for other oases travels see Carpenter's "Asia").

3. Make a visit to a date grove and describe it. What kind of dates are there? What variety is shipped to America? From what other region do we get dates? (see Carpenter's "Asia.") Where in the United States are dates raised? (see Carpenter's "North America." For further information about dates see Carpenter's "How the World is Fed," page 281.) Name other fruits of the oases. Tell the story of a date from its home in the Sahara to your grocery store.

4. Take a caravan trip over the desert and describe it. What is the chief animal used? Why?

5. Who are the principal inhabitants of the Sahara? What is their religion? What are the chief animals? Wild? Tame?

6. Are there railroads in the Sahara? If so, locate them.

XI. ITALIAN LIBIA AND ITS OASES

WE have left the French Sahara and come by airplane across the wastes of rock and sand south of Algeria and Tunis into that part of the desert belonging to Italy. This country is known as Libia, or Tripoli. For a long time it was controlled by the Sultan of Turkey but the

Italians fought with the Turks in 1911, and Libia became a colony of Italy. During the World War the Arabs and Turks rebelled again, but in 1919 Italy regained possession of Libia and the land is now one of its colonial dependencies.

It is, perhaps, the most important of the Italian possessions in Africa. Italy has, in addition, the colony of Eritrea, a strip of sand running along the coast of the Red Sea, and Italian Somaliland, another desert region almost four times as large, farther south.

Libia includes all of the Mediterranean coast between Egypt and Tunis, and extends far down into the desert. It is as long as the distance from New York to Detroit and as wide as the distance from Philadelphia to Buffalo. Its area is almost equal to ten times that of Ohio. Nevertheless the country is of but little value. Its only cultivated portions are a narrow strip of land along the Mediterranean Sea and the oases scattered here and there throughout the desert.

The population is scanty, consisting for the most part of Arabs, negroes, and Jews, with only a few thousand Europeans. The largest cities are Tripoli, the capital and port of Tripolitania (trē-pŏ-lē-tā′nyä), and Bengazi (bĕn-gä′zē), the capital and port of the colony of Cyrenaica. (sĭr-ē-nā′ĭ-ka). Both are on the Mediterranean Sea. The chief towns of the interior are in the oases. We shall begin by visiting Ghadames (gä-dä′mĕs), which lies about three hundred miles south of the Mediterranean Sea.

We find a good landing place on the sands, and leaving our planes, we stroll over the town. Ghadames is one of the oldest settlements of the Sahara and was a great caravan center before Christ was born. It now has several thousand inhabitants.

Passing through the mud wall which surrounds the town we find ourselves in a maze of streets so dark that they have

been compared with the tunnels of coal mines. There are roofs over the streets and in many places the dwelling houses are built above them, the stores being in the tunnels below. The flat roofs are the favorite lounging places of the people during the evening, and they sometimes sleep there at night.

We wind our way through one narrow vault after another, talking to the Arabs, negroes, and Berbers who are working or idling, or buying and selling at the shops. We go to the gardens outside, finding them watered by artesian wells, and then take a look at the farms near by, with their beautiful green patches of wheat, barley, and millet. We enjoy the fresh dates, figs, and apricots, and also the camel's meat and camel's milk served at our meals.

Ghadames is situated at the great cross routes of the desert, used by the caravans to connect the population north of the Gulf of Guinea with the Mediterranean Sea. It has camel routes joining it to the Sudan, the city of Tripoli, and different parts of the Sahara, and in the past it has been a great trading center. It is some distance north of the oasis of Ghat (gät) and there are other routes which lead to the ancient oases of Gatrun and Murzuk (mo͝or-zo͝ok′) in the Fezzan (fĕz-zän′). We visit all these oases by airplane, flying over rocky mountains and valleys and shooting down to rest under the date palms and in the orange groves watered by springs.

We are especially interested in Murzuk, the capital of the Fezzan, a territory about three times the size of the state of Illinois. Most of the country is barren, but the oases are fertile, and Murzuk has about seven thousand inhabitants.

The place is neither cheerful nor healthful, as can be seen by the words of a traveler who spent some time here. He wrote: "How can one live where not a drop of rain

falls, where not a single palatable dish is to be had, where butter is as scarce as a philosopher's stone, where wheat is the diet of kings alone, where the common man lives upon dates, and fever has its headquarters."

At one time Murzuk was an important center of the slave trade. The slaves were brought from central Africa by Arab caravans and taken from here in to Tripoli for sale to the Moors. It is said that the route from Central Africa to Murzuk is marked by the bones of the slaves who have died on the way.

Leaving Murzuk, we fly northward to the city of Tripoli. We pass over frequent oases but most of the country is so barren that no animals can live in it. We expected to see lions, leopards, and other wild beasts in the midst of the desert. None of these are to be found in the terrible wastes. All animals must have water and food and most of the Sahara is so barren that no animals can live there. The lion is called the king of the desert but he is found mostly along its edges, and seldom far out from the cultivated and well-watered lands. It is the same with leopards, jackals, hyenas, foxes, and gazelles. Where there is some grass and bushes we now and then catch sight of an ostrich running along and in the oases are pigeons and doves and other birds of many kinds as well as turkeys and chickens.

Some of the oases have donkeys, horses, and cattle. The camel lives on every green tract, and it is the chief beast of burden. It is noted for its hardiness and its ability to travel a long distance without water or food. It is the most important of all desert animals, furnishing milk and meat, and doing all sorts of work in addition to carrying its owner and his goods over the sands.

As we approach Tripoli, the vegetation increases in extent and variety, the plants which were stunted far

From our airplanes the houses of Tripoli look like a collection of dry-goods boxes.

out in the sand are taller and more luxuriant, and have fewer thorns. By and by, we come into the cultivated country that runs along the coast, and land at last at Tripoli, the capital of Libia. Tripoli has a good harbor and a considerable trade. The port is not far from Naples and only thirteen hundred and eighty-seven miles from Gibraltar. The town is much like those we saw in Algeria. It is right on the sea and is made up of square white buildings with flat roofs, above which the domes of mosques are to be seen. The city is surrounded by a huge wall, guarded by soldiers who belong to the regiments encamped at the south of the town.

Leaving our airplanes we go to the hotel and then take a walk through the streets. We are dusty from our long ride over the desert and decide to have a bath in Moorish style. There are many bath houses in all Mohammedan towns, and we have little trouble in finding one in Tripoli. The first room we enter has couches scattered about it, upon each of which a man or boy is lying wrapped in a white cloth. Some of the boys are sleeping; others look curiously at us. We are led into a side room, where two negroes undress us, giving each a cotton towel with which to wrap oneself and a pair of slippers to protect the feet.

The negroes then take us into another room, floored with stone, which is so filled with steam that we can hardly see one another. Our guides lead us each to a bench and tell us to sit down. We do so, but jump up with a cry. The bench is burning hot, made so by the steam. We try it again, sinking down gingerly, and after a time find it quite comfortable.

As we sit there our bodies grow hotter and hotter, and the perspiration oozes from us in drops. One of the servants brings us cold water to drink, and then the sweat runs off in streams.

Now our attendants take us in hand. They make us lie down on the benches, giving us blocks of hot wood for pillows. They then begin to squeeze, pinch, and pound us. They twist our heads to loosen the muscles of the neck. They pull our arms out and jerk them this way and that. They throw them across our chests and pull them back again. They exercise the legs, bending them at the knees, pulling and twisting them. They next knead the whole front of our bodies, and then roll us over on our stomachs and do the same with our backs, continuing until every muscle has been worked over like dough.

Next they lather us with soap, scrubbing the skin with gloves of coarse camel's hair, and then take fresh tow and scour it clean. We are now washed down with warm water, and, after drying, are wrapped in white cloths and taken to couches in the outer room to sleep. We fall at once into a doze and awake to find that the pain has gone from our bodies and that we are wonderfully refreshed. Some excellent coffee is now brought in. We drink it and, after dressing, depart, feeling that a Moorish bath is by no means so bad after all.

Leaving the bath, we call upon the governor. He is an Italian appointed by the king, and he tells us about the country which Italy owns here in North Africa. Libia has four zones. The first is along the sea, and it has palms, olive, lemon, and other fruit trees. The second is highlands, where are olive groves and palms, and where grain can be grown. The third zone is the desert, with many oases, and the fourth has palms, figs, vines, and almonds. The waters along the coast are famous for their fine sponges, more than five hundred thousand pounds of which are obtained every year. The sponge fishers go out in boats and dive to the bottom and pull the sponges away from the rocks. Sometimes they take them with harpoons.

Libia is now well governed. Under the Turks the people were greatly oppressed. The Italians are reducing the taxes. They are deepening the harbors and improving the cities. They are now making roads and railways near the coast, and are helping the caravan trade to the oases and across the desert to Central Africa.

Libia has some of the shortest caravan routes across the desert; and ostrich feathers, ivory, and other products are brought here from central Africa to be transshipped to Europe. The ostrich feathers come from wild birds. They

Tripoli has many markets for ivory tusks and ostrich feathers. They are brought by caravan across the desert.

are exported to Europe and many are sent from there to the United States. We visit the dealers and see them weighing the great white tusks and the beautiful feathers. Each of us picks out an ostrich plume to send home.

1. To whom does Libia belong? What country lies on the east? On the west? What great sea on the north?
2. How large is the Libian Desert? Compare it with an American state in size.
3. Visit the oases of Ghadames and Murzuk and tell what you see. Why are they trading centers?
4. Visit Tripoli and describe it. Trace a shipment of ostrich feathers from Tripoli via London to New York.
5. How is Libia governed?

XII. EGYPT—THE LAND OF THE NILE

A THIRTY-SIX hour voyage from Tripoli in a small Italian vessel brought us to the Island of Malta, where we caught one of the great English steamers on its way to India via Gibraltar, Alexandria, and the Suez Canal. We left the ship at Alexandria and are now in the chief port of Egypt at the northern end of the long, narrow Nile Valley.

The world has no other land like Egypt. It is a long fertile oasis cutting its way for hundreds of miles from north to south across the greatest desert on earth. The Nile winds about through the middle of the oasis and the dreary sands extend far off to the right and left. The country is one of the oldest on earth and we know it as the land where Moses was born and where the Israelites worked under the Pharaohs. It is important to us to-day because it is one of our competitors in the raising of cotton, and the fruit of its date palms are for sale in our grocery stores. Moreover it has a population of about twelve million people who are customers for some of our American goods.

Egypt is situated in northeastern Africa. It is bounded on the north by the Mediterranean Sea and on the south by Nubia, or the Anglo-Egyptian Sudan. On the east are the Red Sea and Palestine, and on the west is the vast desert from which we have come. The whole of Egypt, including the desert belonging to it, is equal to ten states the size of Indiana, but the oasis or fertile portion is not larger than Maryland. It includes only a narrow strip on each side of the Nile and the great delta through which the Nile flows into the Mediterranean Sea. It is this fertile portion through which we shall travel.

Egypt is the gift of the Nile. It has been built up by the rich soil brought down from the mountains of Abyssinia and Central Africa and spread out over the sands of the desert. Age after age, and layer by layer, this soil has been formed until now the earth in the Nile Valley is from thirty to sixty feet deep. Without the Nile there could be no inhabitable Egypt, and if the Nile should disappear, this rich country of to-day would soon be a desert again.

The Nile is the longest river in Africa, and next to the Mississippi-Missouri the longest of the world. We shall see its source in Lake Victoria later on in our travels. It pours out over Ripon (rĭp′ŏn) Falls at the northern end of the lake, and winds its way sluggishly through the Sudan region, and then through rapids and cataracts and over the valleys and plains of the Sahara until after a journey of thirty-seven hundred miles it spreads out in a wide fan called the Delta, and empties into the Mediterranean Sea at the place we are now.

During its course, the Nile receives some very large tributaries, and among others the Blue Nile and the Atbara, (ät′-bä-rä) sometimes called the Black Nile from the color of its waters. The White Nile is the name of the main stream from its source to Khartum (kär-to͞om′) where the Blue Nile pours in. The Blue Nile and the Atbara rise in the highlands of Abyssinia, which are composed of rich soil. After the Nile has received the waters of the Atbara, it flows for hundreds of miles to the Mediterranean Sea without receiving the waters of a single tributary. The tropical rains melt this soil into the rivers to such an extent that it fills not only their waters, but the Nile itself with the most fertile earth washings.

At flood seasons each year when the Nile is high, the water flows out over the country and this rich mud is spread over the land. This goes on year after year and it is estimated that the land rises about one foot every two hundred years. This is equal in one year to the thickness of the cover of this book. The good land extends only as far out as the water goes and no farther. Beyond all is sand and rock. We can stand on the edge of the desert with one foot hidden in rich clover or cotton while the other rests on barren sand.

Along a great part of its course the Nile runs through a trough. There the fertile strip is so narrow we could cross it in less than an hour. At other places it is so wide that it would take one a half day to walk from one side to the other. From south to north fertile Egypt is longer than from New York to Chicago but until it reaches the latitude of Cairo it is no more than nine or ten miles in width. North of Cairo it spreads out like a fan, the ribs of which end in the Mediterranean Sea. Each rib is about as long as the distance from Philadelphia to Baltimore. This fan is the Delta, so named from the fourth letter of the Greek alphabet which is fan-like in shape. The Delta grows longer and wider each year. It pushes out into the sea about eight feet every twelve months. It now extends one hundred miles along the coast and grows wider and wider.

Egypt has a semi-tropical climate. We are now about as far south as New Orleans; it is winter and the weather is pleasant. In Upper Egypt it is very much hotter. The country has little rain except along the coast, and at Cairo the rainfall is only about one inch in a year. All the water the land has comes from the Nile, and the flow of the Nile makes feast or famine. When the rains are light in the mountains of Abyssinia and Central Africa, there are no great floods and Egypt is dry. The people watch the Nile carefully to see just how much water is coming down. The rise or fall of the river is measured from day to day, and when the stream gets to the right height so that it will fill the canals and spread out over the country there is great rejoicing for the people know that they will have good crops and a prosperous year.

The Nile begins to swell about the first of June. It increases throughout the summer until October, when it reaches its highest level. The water is now conducted over

The Assuan Dam is one of the largest in the world. It was built to hold back the waters of the Nile for irrigation.

all the farms possible, and allowed to remain until it has saturated the soil and deposited its mud. About the last of October the river falls and the fields become dry.

In flood times the Nile flows fast, and in the past, great quantities of water and a vast deal of this valuable mud have been carried far out into the sea. Now dams have been built to hold back the water, and let it out as it is needed. Some of these dams are among the wonders of the world. One at Assuan (äs-swän′), far above Cairo, is more than a mile long, as high as a seven-story house, and so thick that three automobiles can be driven abreast upon its top. It is composed of huge blocks of granite, so strongly cemented together that they will hold back a lake one hundred and forty miles long, containing more than a billion tons of water. The dam has one hundred and forty gates. These are opened when the floods come down from the mountains and the water loaded with mud is allowed to go through and flow over the country. The gates are closed as the Nile falls and the lake is filled with water that can be let out as needed. As the water lies in the dam, the mud sinks, but as the outlets are along the bottom, when the water goes out it carries the mud with it, and thus distributes it through the canals to farm after farm.

South of Assuan are other dams called *barrages* which hold back the water so that it can be gradually let into the fields, and throughout the valley there are canals by which the water is carried over the crops. In the whole of Egypt there are five thousand steam pumps, and more than one hundred thousand water wheels or *sakiyehs*, (sä-kē′-yĕs), worked by oxen and buffaloes, for raising the water so that it may be carried where it is needed. In addition, vast quantities of water are dipped up from the river in water-tight baskets and emptied into the canals.

Corn is one of Egypt's most important crops. After husking, the grains are pounded off with clubs.

XIII. A TRIP THROUGH THE NILE VALLEY—COTTON AND CORN

WE can see something of the irrigation of Egypt by taking motor cars at Alexandria and making a trip through the Nile Valley. How delightful it is and how refreshing after our long travels in the thirsty Sahara. The land is alive with luxuriant green, the gold of ripening grain and the warm, black earth freshly turned by the plow.

The fields are inclosed by little mud walls, and the crops are spread out before our eyes in a many-colored patchwork, through which run roads, paths, and silvery canals. That field of snow in the distance is Egyptian cotton; the green expanse at the left is alfalfa, which grows here as well as anywhere in the world, and farther on are corn and sugar cane rising and falling under the wind from the desert. We ride through pasture fields where thousands of animals, each tied to a stake or watched by a herdsman, are feeding. There are camels, donkeys, and water buffaloes; there are flocks of fat sheep and goats, and here and there a horse or mule.

How busy every one is! Little caravans are going to and fro over the roads. Here comes a drove of donkeys, each so hidden by the bundle of grass upon him that we can see only his ears and his feet as he moves along without halter, bridle, or saddle. Behind is a line of camels, each loaded with two bales slung from its hump, while farther back are other camels piled high with grain.

We stop now and then to talk with the farmers. They are of the peasant class, known as *fellahs*, forming about three fourths of the whole population. They are the descendants of the ancient Egyptians mixed with the various races which have conquered the country. Many of

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them own their farms, little patches often no larger than our village gardens. Others work as farm hands on the estates of rich landowners scattered over the country. They are generally poor; wages are low, and they earn only a few cents a day.

The people live in villages and go out to their farms. The cattle feed out of doors all the year round, and are often taken into the house with the family at night.

The villages are sometimes shaded by date palms, but many have no trees whatever. There are no yards or gardens. The houses are of sun-dried brick with roofs of straw or palm leaves. Most of them are of one story, and few have more than two small rooms. Near the roof are little square holes which admit the air, serving as windows; the average roof is so low that we can reach it as we sit on our donkeys.

The furniture of one of these houses consists of little more than a few mats, a copper kettle, and some earthenware pots. The bed is a ledge, built along the side of the room. Fires are not needed for heating, and the cooking is usually done out of doors on little stoves of burnt clay.

The ordinary food is a coarse bread of corn, wheat, or millet made up in round, flat cakes. The *fellahs* eat vegetables, eggs, cheese, and dates, but seldom have meat. They sit about on the ground at their meals. They have no forks, and every one eats with his fingers.

The Egyptians dress simply. A man is well clad if he has a pair of short cotton trousers and a gown of blue cotton with a felt cap for his head. Sometimes he twists a scarf about his cap, making it look like a turban, and on dress occasions he may have a pair of shoes of bright-colored leather. The women wear blue cotton gowns, much the same as the men, but most of them have cloths over their

These young Egyptians are glad to pose for a picture. The boy's head is shaved, except for a patch on top.

heads and long, black veils covering their faces so that only the eyes can be seen. They stand erect, as a result of the custom of carrying things on their heads.

We see many children sprawling about in the dust near the huts. Some are making mud pies on the banks of the canals, and some herding the donkeys and sheep, driving the animals to and from pasture. The smaller children are half naked, and the babies wear no clothes at all; their mothers carry them astride their shoulders, instead of in the arms as we do.

Camels and oxen are often used together for plowing in Egypt. Modern farm implements are being introduced.

Now we have left the village and are again in the fields. Here two men are hoeing, there one is plowing with a camel and an ox hitched up together, and farther on is another driving two oxen in front of a harrow. Down the road comes a boy on a buffalo; he has neither bridle nor saddle, and sits sideways. The little fellow wears no clothes, and his skin is tanned black by the sun. Buffaloes are used here for all sorts of farm work, and also furnish milk and meat for the *fellahs*.

Notice the two men standing knee-deep in that canal with a basketwork bucket hung by a rope between them. They are scooping the water from the canal into the bucket, and, with a swinging motion, are throwing it into another canal higher up, so that it runs off over the fields. Tens of thousands of men and boys are always lifting up water in that way from the river or the canals so that it can be spread over the crops. The little mud walls about the fields hold in the water.

There are many other methods of irrigation, and among them is the great wheel known as the *sakiyeh* with jars attached to its rim, such as we have seen before. The wheels move about in the wells or canals, and, as they turn, raise the water and pour it into troughs, through which it flows over the country. A blindfolded donkey or buffalo keeps the wheel moving, and a boy or girl runs along behind to whip the animal whenever he stops. Some soils need only the floods to make them fertile, and others are irrigated throughout the year.

The climate grows warmer as we go up the river, and the difference affects the seasons of seedtime and harvest. As a usual thing three crops are grown. The winter crop is of grains of all kinds. This is sown in November and harvested in May or June. The summer crop is sown in March, April,

The scale in which cotton is weighed is supported by three poles. The man in the background keeps a record of the weights.

Egypt produces some of the finest cotton in the world. These bales, which reach to Mr. Carpenter's shoulder, are ready for export.

and May, when the Nile is low, and harvested in October and November; it is made up of cotton, sugar, and rice. The autumn crop, which is sown in July and gathered in September and October, consists of rice, Indian corn, millet and vegetables.

In the Delta vast quantities of cotton are produced, as well as rice, wheat, and Indian corn. Cotton is the most valuable crop, bringing in many millions of dollars a year. The Egyptian cotton has a long and fine fiber which is very desirable for certain kinds of cloth, and for this reason it brings a high price on the market. The Delta raises on the average more cotton per acre than any other land, and the whole crop of Egypt is about one sixth as large as that of the United States.

Here is a field where they are picking cotton. Scores of dark-skinned Egyptian boys and girls are working away among the white bolls. The boys wear blue gowns and dirty white skull caps, and the girls have cloths over their heads. All are barefooted, and some of the boys are almost naked. They are picking the fiber into baskets and are paid so much per hundred pounds. A boy will gather thirty or forty pounds in a day, and does well if he earns as much as ten cents.

The first picking begins in September. After that the land is watered, and in October a second picking takes place and after that a third, in November. The first and second pickings yield the best fiber. They are kept apart from the third and sold separately.

After the cotton is picked it is put into great bags and loaded upon camels. They are loading four such beasts in that field at the side of the road. Two bags are enough for each camel. Each is as long and as wide as the mattress for a single bed; it is about four feet thick and weighs three

hundred pounds. The camels lie flat on the ground with their long necks stretched out. They groan as they are loaded. There is one which is actually weeping. We can see the tears run down his cheeks.

Now watch that camel get up. He rises back end first, the bags swaying to and fro as he does so. How angry he is! He goes off with his lower lip hanging, grumbling like a spoiled child. How odd the camels look as they travel. The bags on their backs almost touch the ground, and each ungainly beast seems to be walking on six legs.

Looking down the road, we can see long caravans of camels loaded with bales, and on the other side of that little canal is a small drove of donkeys bringing in cotton. Each donkey is hidden by a bag which covers its back and hides all but its legs.

In this way the cotton is brought to the railroad station and to the boats on the canals. The latter go out of one little waterway into another until they get into the big canal that carries them to Alexandria. The railroads are filled with cotton trains during the harvesting season, and just now there are long strings of cars loaded with cotton coming into this city. Some of this cotton has been ginned and baled on the plantations; some is sent in with the seed and ginned at the ports. There are also ginning establishments at the larger cotton markets of the interior, many of which are run by steam and with up-to-date machinery. At these gins the seed is carefully saved, and shipped to Alexandria by train or in boats.

Sugar cane grows well in Middle and Upper Egypt, as do also grains and many vegetables. The soil is everywhere fertile, and, if it has the rich mud from the Nile, it produces abundantly. Sometimes the seed is scattered on the mud, after the floods, and tramped in by oxen or goats.

Egypt is a land of fine fruits. We can buy oranges, grapes, figs, apricots, and peaches almost anywhere in the Delta, and dates are the staple fruit of the people. Altogether there are more than six million date trees and we shall see the date palm in almost every village we visit.

XIV. ALEXANDRIA AND CAIRO

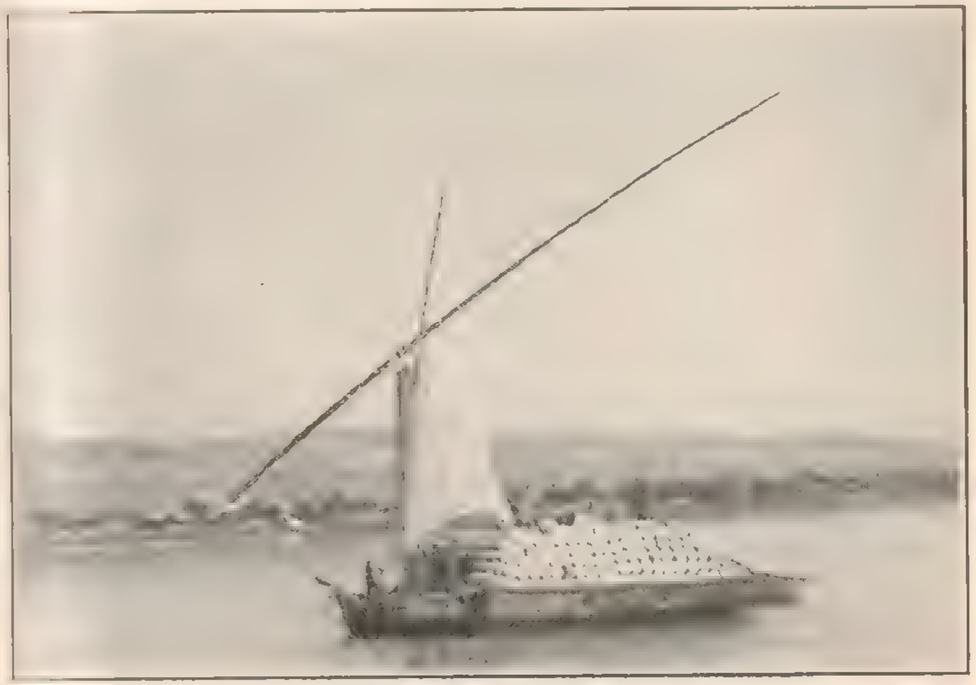
OUR travels to-day are to be in the two largest cities of the African continent. These are Alexandria and Cairo (kī′rō), both situated in Egypt. Alexandria has about a half million people and is one of the chief ports on the Mediterranean Sea. Cairo is the capital of Egypt. Almost twice as large as Alexandria, it is among the most interesting cities of the world.

We have returned to Alexandria by train and are now looking out over the great harbor. It is protected from the sea by a breakwater two miles in length, and the largest ocean steamers come right up to the quays. More than fifteen hundred steamships enter and leave the port every year and nine tenths of the trade of Egypt passes through here.

As we walk around the harbor we see many vessels taking on goods. Some are loading cotton for England, France, and Germany, and one has a cargo of cotton for the United States. Because of its long and fine fiber thousands of bales of Egyptian cotton are exported to our country to mix with our cotton and wool in making certain kinds of cloth. Some vessels are taking on cotton seed for different countries of Europe, and others sugar for Turkey and India.

Among the chief exports are wheat and barley, onions and rice, as well as ostrich feathers and dates. The ostrich

Alexandria's new harbor is protected by a breakwater two miles long. Ships from all over the world lie at anchor here.



This freight boat is loaded with barrels of American kerosene, which will be taken far up the Nile.

feathers come from the wild birds found far up the Nile, and many of the dates are from the oases of the Libian Desert.

But let us stop and see what Egypt is buying. Many of the steamers are unloading cloth of one kind or another. There are steamers from Great Britain taking off cotton goods, and from France and Italy unloading silks. There are also woolens from England and France, and dyes from Germany.

There are pumps and other kinds of machinery which have come from the United States, as well as railway locomotives and cars. A great deal of our oil is also imported.

While in Alexandria we cannot realize that we are in one of the oldest ports of the world. There was a trading center here in the days of the Phœnicians, and a civilized city eighteen hundred years before America was discovered.

The Bible tells us how Jacob went down into Egypt to buy corn and how his son Joseph became Prime Minister of the Pharaoh (fā′rō) who ruled at that time. The Bible describes how the Israelites were afterward enslaved by the Egyptians and made to toil under taskmasters until the plagues came and the king permitted Moses to lead his people across the Red Sea into the desert of Sinai.

Until the route around the Cape of Good Hope was discovered, Alexandria was about the only gateway to Africa. It became the center of commerce and trade and a seat of learning and art, with a famous library containing 700,000 volumes. It is said that when Egypt was conquered by the Arabs, about 641 A.D., the Arab conqueror ordered the library to be destroyed, explaining that the Koran contained everything a man ought to know and that therefore other books were not needed. The story says that he gave the books to the public bathhouses to feed their fires, and that there were so many that it took six months

to consume them. At that time Alexandria had four thousand palaces, four hundred places of amusement, twelve thousand gardens, and four hundred baths.

It was shortly before this time that the Arabs conquered Egypt. They converted the people to the Mohammedan religion and nine tenths of all the Egyptians are now of that faith. Later on the Turks conquered the Arabs, and for three hundred years Egypt was ruled by them. During this period the people were greatly oppressed, and at times treated almost as cruelly as the Israelites under the Pharaohs. There are now in Egypt about nine million Mohammedans, six hundred thousand Bedouins, and seven hundred thousand Copts or native Christians.

As time went on the rulers of Egypt borrowed a great deal of money of the British. This they were unable to pay and in 1882 England took possession of the country, and in 1914 it was declared a British protectorate. It was then governed somewhat as Morocco is now. There was a native ruler called the Sultan, but he was told how to rule by the English officials, who regulated the taxes and saw that justice was done. The British gave the Sultan more and more power in the management of the country, and in 1922 ended their protectorate, so that now Egypt is an independent nation ruled by a king.

The British greatly improved Egypt and the condition of the Egyptians while under their rule. They reduced the taxes, put in great dams and other irrigation works, and built railroads far up the Valley of the Nile so that a large part of our travels will be by rail.

A few hours by train brings us from Alexandria to Cairo. The city lies on the right bank of the Nile, and is so situated that it is often spoken of as a beautiful jewel joining the handle to the green fan of the delta.

The Alexandrian newsboys are grown men. They bring the city's newspapers to the trains.

There was a city here many hundred years before Christ, and the present Cairo was founded by the Arabs shortly after they conquered Egypt. It has been the capital of Egypt for centuries and vies to-day with Constantinople as the chief Mohammedan city of the world. Cairo is three times as big as Bagdad, six times as big as Damascus, and eleven times the size of Mekka, where Mohammed was born.

The distance between Alexandria and Cairo is about one hundred miles. The delta is level, and rich crops stretch out on each side of the track as far as our eyes can reach. Now we are close to the Nile and now far out from it, winding our way through pastures dotted with cattle, donkeys, and camels, and by the mud villages scattered over the plains.

At every stop crowds of queerly clad people rush to the car windows with refreshments to sell. There are bare-footed girls and boys in blue gowns; there are veiled women carrying clay jars of water on their heads; and peddlers wearing red fez caps, who bring us hard-boiled eggs, oranges, dates, bread, and green sugar cane. We bargain with them for the fruit and eat it on the train.

As we near Cairo we can see the desert stretching away on both sides. The minarets or towers of the mosques are visible before we come into the city, and long before that, not far from the Nile, on the edge of the desert, we see the Pyramids, those great masses of stone which were erected as tombs by the Egyptian kings of the far-distant past.

At the station we send our baggage on to the hotel and take donkeys for a ride through the city. Each of us has a long-eared, shaggy-haired animal with a high red saddle, and a donkey boy trotting behind. The boys are brown-skinned little fellows in bare feet. They wear skull caps

Egyptian children write their lessons on huge slates.

and have what look like nightgowns of blue cotton stretching from their necks to their ankles. They speak a little English, telling us the names of their donkeys. One says: 'My donkey good donkey. His name Uncle Sam," and another: "My donkey best donkey. His name Yankee Doodle." They see we are Americans and think these names will please us. Each boy carries a rod with which he pokes the donkey or whips it to make it go faster; the little beasts almost throw us off as they jerk their hind legs from one side to the other to get away from the rod.

We direct the boys to take us to the foreign part of the city. We wish to see the palaces of the king and his officials, and the wide boulevards and beautiful parks for which the city is noted. We then look at the houses of the wealthy Greeks and Egyptians, and later dine at one of the big hotels built for the thousands who come here from Europe and America to spend the winter on account of the excellent climate.

After dinner we rest awhile on the hotel porch, watching the turbaned, long-gowned jugglers perform their magical tricks, and the snake charmers make their poisonous snakes

move to and fro to the music of pipes. Ragged musicians play for us, and the strange characters of Cairo pass up and down the street before our eyes. There are business men and travelers in European clothes. There are soldiers on horseback, turbaned sheiks on donkeys, and Bedouins on camels. There are officials in automobiles and carriages, with footmen running in front carrying the wands of authority to make the people get out of the way. Here goes an automobile, there is a boy on a bicycle, and behind comes a woman driving a donkey load of hens and geese. The fowls are in crates, and they squawk and hiss and crane their necks out of the slats. Down the street comes a boy with a cow, which he milks as he goes from door to door.

Now our donkey boys are ready again, and we start on our trip through old Cairo, galloping in and out through the crowd to the oriental section of the city. The houses are like those of the native parts of the African towns we have seen. They are flat roofed and box shaped. Many have windows of latticework extending out over the street, and the doors are wonderfully carved. Most of the buildings are white, and nearly all have dark-skinned Egyptians standing outside or peeping out from within through the slats of the windows. The streets are narrow and dirty and more thronged than those of other parts of the city.

And then the noise and the people! We thought Algiers and Tunis strange but Cairo is strangest of all. We are moving along through a kaleidoscope of many colors and costumes, crowded and jostled by people on foot, and by horses, donkeys, and camels. We are pushed to the wall again and again by the porters, who carry great boxes and bales on their backs, held there by ropes tied around their foreheads. Our guide yells to those in front to get out of the road and warns us to be careful. We pass girls carrying

This Egyptian woman is a Mohammedan and must not go out of doors without her veil. The spool on her forehead is of brass.

water on their heads in large earthen jars, so carefully balanced that it does not spill as they walk along through the crowd. Blind beggars are picking their way with canes, and peddlers are crying their wares. Some have trays of fruit on their heads and some jars of lemonade on their backs.

The water carriers ask us to drink from their goatskins, and we are besieged everywhere by the beggars. "Backsheesh! Backsheesh! A gift!" they cry, not only in Cairo, but all over Egypt. From now on we shall find men, women, and children begging wherever we go, the children running beside our donkeys for blocks with their little brown hands outstretched for alms.

We see richly dressed men wearing turbans and gowns, and now and then finely clad ladies with white-veiled faces going along with black men-servants to guard them.

We spend much time in the bazaars. Above the streets

there is matting which shuts out the sun, making a twilight city of stores under one roof. Every variety of merchandise has its own place, and work of all sorts goes on in the shops where the merchants are selling. Here boys and men in red fez caps and long gowns are making cups and trays. They sit at low tables, on which are sheets of brass which they pound into shape. In the bazaar of the carvers, boys squat on the floor and hold the wood with their toes as they cut it, and in the street of the booksellers, men sit cross-legged and bind volumes printed in Arabic. We walk through streets where Persian goods only are sold, and pass on to the Indian bazaar, where most of the dealers are Hindus. There are also Turkish bazaars noted for their fine rugs, bazaars selling watches and jewelry, and many where one can buy sweetmeats, perfumery, and spices.

Every now and then we get down from our donkeys to talk with the turbaned, long-gowned merchants. They treat us politely, asking us to sit on the ledge outside their stores, and to drink coffee with them while discussing the prices. Everything is sold by bargaining, and they always ask more at first than they expect to get.

The time passes quickly, and we return to the native quarter again and again. We visit the mosques for which Cairo is noted. Some of them cover acres, the huge buildings rising high above the rest of the city. Every mosque has a court in it with a fountain, where the people wash their feet and hands before going in to worship; and each has its minaret, on which the priest stands at certain hours of the day and night and calls the people to prayers. We take off our shoes or put slippers over them before entering the mosques; the Mohammedans tell us we may, if we wish, keep our hats on.

Later we visit some of the Coptic churches. The Copts

The students of the University of Cairo study from the Koran.

are descendants of the ancient Egyptians, and have an old form of Christianity. There are several hundred thousand of them in Egypt. They dwell chiefly in the cities, dressing and living like the Mohammedans. They are usually clerks or scribes. We can tell them by their black turbans and kaftans or vests. The Copts have a language of their own. In upper Egypt they own most of the land. Later, in Abyssinia we shall see people who believe in the same religion.

One day is spent at the Mosque of El-Azhar where is the University of Cairo, the largest of all Mohammedan schools. The mosque covers two acres. Here nine thousand Egyptian boys and men study the Koran, as we saw the Moorish boys doing at Fez. The scholars range in age from little boys of four to gray-bearded men of seventy. They are sitting on the floor in groups, all in their bare feet or stocking

feet, their shoes having been left outside the mosque. Some of the children are learning to write the Arabic characters, some are committing sentences from the Koran, and they sway back and forth as they sing out the words. One of the first sentences they learn is: "There is no god but Allah, and Mohammed is his prophet." School goes on all the year round. There are but few holidays and no long vacations. The children begin when the sun rises, first saying their prayers and then studying until noon.

When the British assisted in the government of Egypt many modern schools were established. There are public schools all over the country, and several hundred thousand boys and girls are taught in them. There are schools also connected with the mosques, so that altogether millions of the little Egyptians are receiving an education. There are schools of law, agriculture, and medicine, and it is proposed to establish a state university at Cairo.

In striking contrast with Egyptian Cairo is the new European Cairo which has grown up adjoining it. European Cairo is a city of wide streets paved with asphalt. It is a city of fine motor cars, electric lights and sanitary improvements. It has stores which carry goods as fine as those of Paris and New York and great hotels where one can live as comfortably as anywhere in the world. It has French, English, and Arabic daily newspapers and long-gowned newsboys cry the papers on the street. There are about fifty thousand Europeans in the city, the majority of them French and Italian. A large number of the merchants and bankers are Greeks. The foreigners live in apartment houses and in handsome palaces and villas outside the city. Many Europeans and Americans come to Cairo during the winter and we shall meet thousands of tourists in our travels through the Nile Valley.

XV. WE VISIT THE PYRAMIDS AND CALL UPON THE SPHINX

TO-DAY we shall visit the Pyramids and call upon the Sphinx. We shall in our imagination go back to the beginning of history, and travel in the footsteps of the kings who ruled here many thousand years ago. Later, in the Museum at Cairo, we shall see the statues of some of those ancient monarchs and even some of those monarchs themselves, for their bodies have been mummified and are preserved to this day.

For ages the Pyramids have been among the wonders of the world. They are huge monuments of stone, built as tombs by the Egyptian rulers, four or five thousand years ago. The remains of fifty or sixty Pyramids have been found in different parts of the Nile Valley, and the three largest and best preserved are here in the desert about eight miles from Cairo. One of these, the great Pyramid, was constructed by Cheops (kē′-ŏps), who was king of Egypt about five thousand years ago.

In going to the Pyramids we motor across the Nile over a magnificent iron bridge guarded by bronze lions, and then on through a long avenue of acacia trees, the branches of which intertwine overhead, forming an arbor reaching from the Nile to the desert. The road is above the level of the fields, and the green stretches away to the north and south as far as our eyes can reach. In front is the end of the arbor, a patch of light as big around as a drum head. That patch is the desert.

We see the Pyramids through the trees as soon as we come out of Cairo. They seem small at first, but grow rapidly as we approach them, looking like three huge piles of stones standing out against the blue sky. It is not until

One can ride to the foot of the pyramids on a donkey. The blocks of stone are half as high as a man.

we leave the cars and walk over the sand to them that we can see how very big they are. As we stand in front of the Great Pyramid and look up, it seems as though the whole sky were walled with stone. The top towers high over us, almost kissing the white clouds, which to-day are floating in the clear blue of the Egyptian heavens.

The Great Pyramid was once four hundred and eighty-two feet high; and, although much of it has been carted away to make buildings for Cairo, its height is still about four hundred and fifty feet. Its base covers thirteen acres, and its flat top is so large that a good-sized house could be built upon it. The pyramid is an almost solid mass of stone, made of huge blocks, piled up in the shape of steps, growing smaller in size as they rise.

Herodotus, the Greek historian, tells us that this monument was made by forced labor; and that it took one hundred thousand men twenty years to build it. Ten years were required to make the road to transport the stones, most of which came from the Arabian mountains and had to be ferried across the Nile. When Cheops died he was buried inside the pyramid, separate rooms being made for the queen and himself.

We also go inside the pyramid and with flashlights take photographs of the rooms in which the bodies of the king and queen were laid. Each is as big as the ordinary schoolroom, and the coffins are great blocks of granite hollowed out to the right size to contain the body of a man.

We climb to the top, each assisted by three Arabs, who pull and push us from one great stone ledge to another. There are about one hundred and fifty layers of stone. Each layer or step is on the average about as high as a dining table, so that if our friends at home will go to their dining rooms and climb upon the table one hundred and fifty

times, they will know something of the work we do in climbing this pyramid. But they will not have black-skinned Arabs helping them, who almost jerk our arms off as they drag us from one ledge to another.

We are tired when we get down to the desert, and are glad to hire camels to ride across the sands to the Sphinx. No one knows just how old the Sphinx is nor why it was made. It is an enormous figure, with the crouching body of a lion and the head of a man, cut out of a solid block of rock. The figure is as high as a five-story house. Its body is one hundred and forty feet long and its fore legs measure fifty feet. Its head is so large that it would fill a big room. The ears are each four feet long, and a man standing on the tip of one of them could not reach to the crown of the head. The nose measures more than five and one half feet, while the mouth is so big that, if it were open, an ox or a camel could walk in.

The features of the Sphinx are battered and worn. The face has been shot at by Arab soldiers again and again and the sands of the desert have been blowing upon it for five or six thousand years. We climb upon the great body and whisper in its ear, asking it to tell us the riddle of its existence, and something about the strange people who chiseled it out of the rock. But, alas, the only reply is the whistle of the winds from the sands.

All around the Sphinx and throughout the desert near Cairo are the remains of ancient monuments. Huge chambers have been dug out, in which mummies, jewelry, and various things were stored. Other chambers and pyramids exist farther up the Nile on the site of Memphis, which was a capital of those ancient kings, but which has now passed away. There are the wonderful ruins of Thebes (thēbz) and Karnak (kär′nȧk) in Upper Egypt, including the remains of temples and avenues lined with sphinxes, and

Children carrying sand to fill Tutankh-Amen's tomb after the excavations were completed.

These statues, which were found in the tombs near the Pyramids, are 4000 years old.

there are also other huge statues and ruins which show us that the ancient Egyptians were a civilized people.

Going back to Cairo, we drive out to see the obelisk on the site of Heliopolis (hē-lĭ-ŏp′ō-lĭs), the old city of the sun. The huge stone shaft is like that which was brought from Egypt and now stands in Central Park in New York. It is supposed that this obelisk was here long before Jacob came down into Egypt. It stood on one side of the entrance to the Temple of the Sun at the end of an avenue of sphinxes. We look in vain, however, for the remains of the palaces, temples

and schools. The obelisk is surrounded by green fields, and two blindfolded buffaloes are moving a water wheel at one side of it, while beyond are the yellow sands of the desert with the Pyramids rising above them.

In the Museum at Cairo we see scores of mummies which have been found in the tombs. These mummies are the real bodies of ancient kings, so treated with ointments that they have not crumbled to dust. The limbs are wrapped around with many cloths, and some faces are so lifelike that it seems as though they might talk. We look at a princess who may have been the one who found little Moses in the bulrushes; and linger long before the mummy of Rameses, an Egyptian ruler who reigned about 1300 B. C.

In other rooms we examine articles taken from the tombs. There are gold bracelets and rings like coiled snakes, similar to the jewelry of to-day. There are fishhooks like the ones we use now, trinkets for the toilet, writing materials, and other objects which show us that the Egyptians of four thousand years ago were not very different from us.

XVI. THE SUEZ CANAL

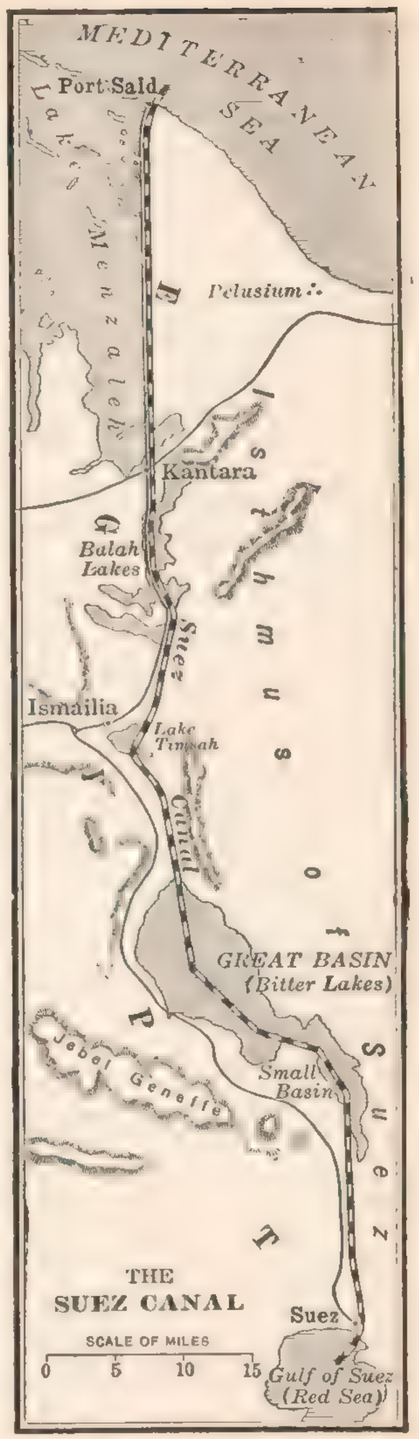
WE have come by railway from Cairo to Port Said (sä-ēd′) on the Mediterranean Sea, to make a trip through the Suez Canal before starting on our long journey up the Nile to the Sudan. We are now at the northeastern corner of Africa on the Isthmus of Suez, that little tongue of land which for ages blocked what is now one of the great commercial water routes of the world.

Until a few years ago, Africa was a peninsula tied to Asia by this narrow isthmus. Then the canal was cut through, and the continent became an island. It reminds us of

another canal belonging to us, which has made islands of the North American and South American continents.

Do you realize how important the Suez Canal is to the commerce of the world? For ages this isthmus was the locked gate on the shortest water route between Europe and India, China, and Japan. Ships could sail in from the Atlantic and across the Mediterranean to Port Said and could come through the Indian Ocean and up the Red Sea to Suez but then they were stopped. The isthmus of Suez is a strip of sand so narrow that a railroad train could cross it in a couple of hours; but it was as great a barrier to navigation as though it had been the Alps or the Andes. The result was that all vessels carrying goods to and from Asia had to sail clear around the Cape of Good Hope, at the southern end of the African continent. The distance was as great as halfway around the world, and it took many weeks to make the voyage.

From time to time men suggested that the isthmus might



be cut through; but it was not until about the middle of the last century that anything was done. Then a French civil engineer, Ferdinand de Lesseps, brought forth plans for the work; and the French, aided by the Egyptians, cut this great trench through the desert, and the waters of the Mediterranean and the Red Sea flowed together. At present the Suez Canal is owned and operated by Great Britain. The canal is over one hundred miles long, and so wide and deep that very large steamers can sail through. Harbors were built at both ends of the canal to accommodate the shipping, parts of it were walled with cement to keep back the sand, and at every few miles great basins were made for ships to enter while other ships passed them.

The canal cost more than one hundred million dollars and it took ten years to make it. Twenty-five thousand Arabs and Egyptians were kept working upon it, and four thousand casks of drinking water were daily carried across the desert on camels to supply them.

As we consider the canal, we compare it with our great canal at Panama, and it seems to us that our canal is a more wonderful work. It is true that the Suez Canal is about twice the length of the Panama Canal, but this canal is little more than a great ditch through the desert where the ground is comparatively level and the dirt and sand could be taken out and thrown upon the banks and left there. The Panama Canal goes over the mountains. It crosses the backbone of the Andes and from the eight or ten miles in that portion we had to dig out, lift, and carry away more earth and rock than the Egyptians lifted in the whole length of the Suez Canal. The Suez Canal was made almost entirely by hand. Much of it was by forced labor and thousands of boys twelve years of age aided in the work, being paid five cents a day. The Panama canal was dug

by machinery, but we had twice as many men at work and the cost was about five times as much as that of the Suez canal.

As soon as the Suez Canal was completed, the steamers sailing between Asia and Europe began coming this way. The average saving in miles was greater than the distance from San Francisco to China and there was also a saving in money, although the canal tolls are high. Every ship has to pay in proportion to its size and the number of its passengers.

The Suez Canal is now used by thousands of freight and passenger steamers every year, and several hundred thousand people annually ride through it. The waterway is overcrowded, and as it has proved to be a profitable undertaking, it may some time be necessary to build another canal by its side. The Panama canal already has several thousand ships passing through every year, and some day we may need a second canal there.

We find the harbor at Port Said full of steamers, which are waiting to enter the Suez Canal or have stopped to coal after coming out. A ship from India, loaded with grain, lies at one wharf, and near it is a vessel from Australia with a cargo of wool. While we wait, an English ship carrying the first tea of the season from China to Europe passes by, and an American gunboat on its way to the Philippines starts south into the water way.

We take passage on a vessel for Suez, and are soon steaming along through the desert. We go slowly, for the ships are not allowed to move faster than five miles an hour; and at the wider places we frequently receive a signal from one of the stations on the shore to wait until a vessel goes by.

Now we pass a great dredge which is pumping up the sand from the bottom of the canal and throwing it out upon the banks; and now we go by one of the small towns which

has grown up to accommodate the laborers who are employed on the work.

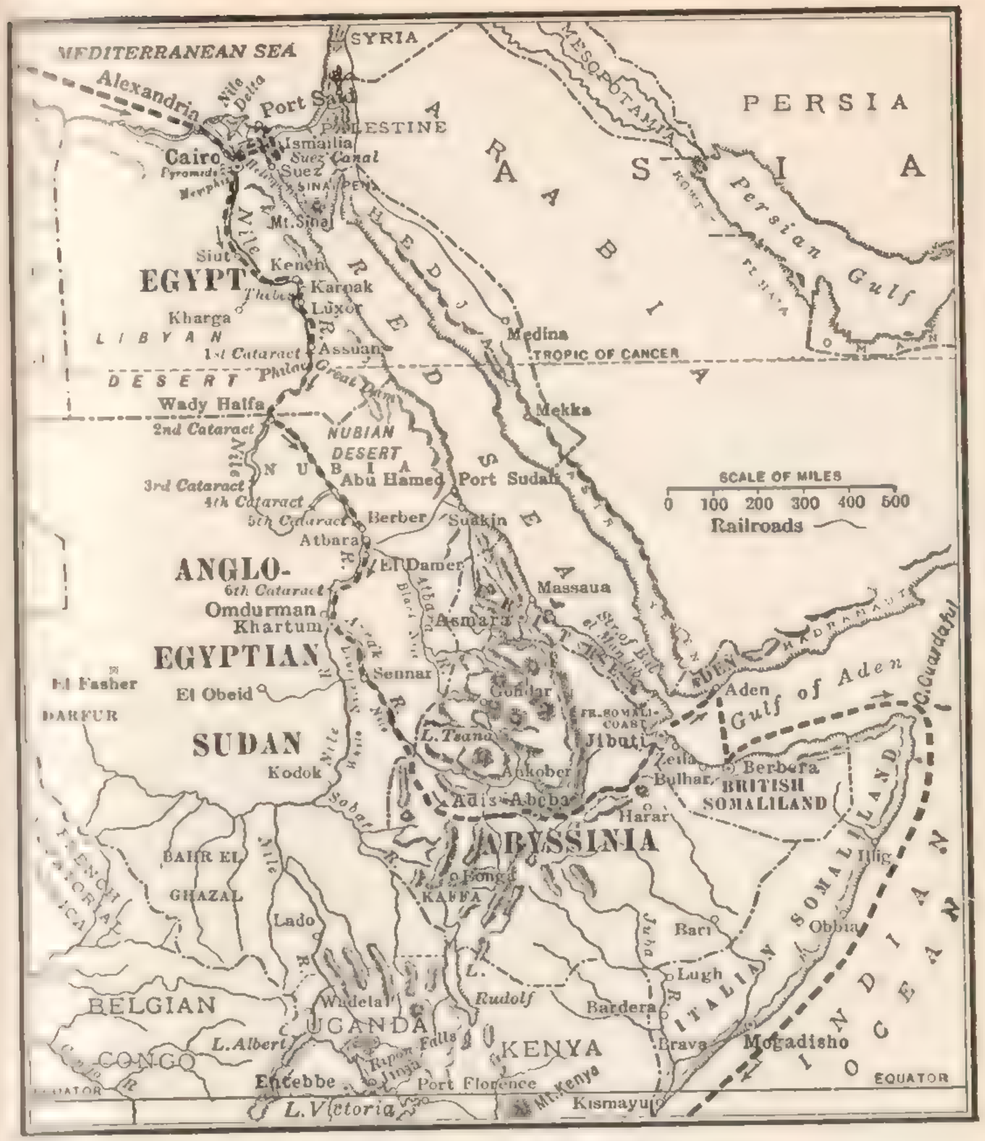
The canal is so narrow that the ships in the distance seem to be walking, as it were, in single file through the desert. We are close to the shore most of the way, and the dry, thirsty sand looks drier than ever in contrast with the sea-green water below.

We pass caravans of camels trotting along, their riders bobbing up and down against the clear sky, and at one time in the hazy air of the desert see what looks like a city, shaded by palms, afar off over the sand. It fades away as we go onward, and we learn that it had no existence; it was merely a picture of the air, the mirage so often seen in desert lands.

We stop at Ismailia (ēs-mā-ēl′yȧ), a little town midway through the canal, where de Lesseps lived while the canal was being built; and soon after that we enter the lakes, scaring up some pink flamingos, which are resting on the shores. The trip takes us all day and far into the night, but we finally reach Suez at the southern end of the canal. From Suez we go back to Cairo by train.

XVII. THE ANGLO-EGYPTIAN SUDAN

LEAVING Cairo, we shall go by rail up the Nile to Assuan where the great dam is, and there take a river steamer that will carry us up the Nile to Wady Halfa. Here we reach the railroad which crosses a terrible desert and lands us at Khartum, where the waters of the White Nile and the Blue Nile come together. On the way we visit Siut (sē-o͞ot′), the capital of Upper Egypt, a thriving city of over fifty thousand inhabitants. We stop awhile at Luxor (lŭk′sôr) to see the ruins of ancient Thebes, and spend some time at Assuan, exploring the remains of the mighty temples on the Island of Philae (fī′lē), which are now almost swallowed up by the dam.



Our route through Northeastern Africa

The valley of the Nile narrows as we go farther south in our small river steamer. We are often close to the desert, and sometimes between rocky hills and strips of green marking the banks of the Nile. In places the river has cut its way through the rocks and so walled the hills that the waters for irrigation have to be lifted from the river in order to flow over any level place whatsoever. This is done by *sakiyehs*, worked by buffaloes, or by half-naked men or boys who lift the water from level to level. Everywhere are mud ditches like those we saw in Lower Egypt; and everywhere we see donkeys and camels and about the same kind of people.

As we go up the river the natives grow poorer and the villages meaner. Flies infest the steamer at every stop, and there are more and more camels. Faces are blacker. There are many negroes among them, and the people are wild and savage.

From the town of Wady Halfa we take the railroad across the desert to Khartum. The trip is one of the bleakest and dreariest on earth. The desert is all sand and rocks, and the dust is so thick that the cars have double windows and shutters. There are wooden hoods over them to keep out the direct rays of the sun. The only water the road has comes from artesian wells, and the stone stations have no green about them. Our train is hauled by an American locomotive, and there is a bathroom in one of the cars where we can bathe ourselves during the trip. The journey across the desert lasts more than a day, and we are very glad when at last we arrive at Khartum, the capital of the Anglo-Egyptian Sudan.

We are now far in the interior of Africa, and in the largest government and commercial center between Cairo and the Cape of Good Hope. We find Khartum a handsome

On our journey through Upper Egypt to the Sudan we pass many villages like this. Date palms overhang the river.

The memorial to General Gordon at Khartum shows this hero of the Sudan seated on a camel.

city, with broad streets, public gardens, and wide avenues shaded with trees. We call at the palace of the governor-general, visit the Gordon Memorial College, and look at the bronze statue of General Gordon which stands in the rear. Here the great hero is seated upon a camel on a high pedestal of stone. He has merely a stick in his right hand, but he is looking fearlessly out toward the desert as he did when he led the British and Egyptian troops against those of the Mohammedan Mahdi, who was trying to conquer the Sudan and the Egyptians.

In our talk with the governor-general we learn much about this vast region. The Anglo-Egyptian Sudan is practically one of the colonies of England. It is ruled by a governor-general and has free trade with Egypt. The country begins at the upper end of Egypt and extends south as far as Uganda and the Belgian Congo, or farther than from Lake Superior to the Gulf of Mexico. It is nearly one thousand miles wide, and it would cover

The camel soldier of the Sudan belongs to the native forces of the British army in that country.

all our states east of the Mississippi River and have enough over to hide Great Britain and Ireland. It is about one third as large as the United States proper and some of its land is exceedingly rich. Here at Khartum, the White and the Blue Nile come together, inclosing a great wedge of land made by soil brought down from the highlands of Abyssinia. This is so rich that if the Blue Nile can be dammed as has been proposed, the land may be turned into a vast cotton plantation equal in area and product to Egypt itself. Much of the remainder of the Sudan is desert, but there are several oases, and along

the Nile and its tributaries are patches of forests which yield valuable timbers, rubber, and gum.

The country has many camels, horses, and donkeys and large herds of cattle, sheep, and goats. There are elephants in the forests and hippopotamuses and crocodiles in the swamps. Lions, leopards, and giraffes are to be found in those parts of the country where the grass grows, and there are many ostriches on the edges. The Sudan is said to have gold, silver, and copper and some iron and coal.

There are only a few railroads in this vast region. Travel is by caravan or the rivers. All of the railroads joined together would not reach much farther than from New York to New Orleans. The caravan routes follow the line of the springs and wells in the desert. The Nile and its tributaries are the chief highways, and the principal one is the White Nile, up which one can go many hundred miles south of Khartum. The Blue Nile is navigable for steamers only during the floods, and the Atbara is too rapid for ships.

But first we must learn something about the strange peoples ruled from Khartum, the capital of the Sudan. There are altogether almost four millions of them, of whom only a few thousand are Egyptians or other foreigners. The word Sudan means *blacks*, and the Southern Sudan is a land of the blacks. It has many negro tribes, among which are the Shilluks, a fighting race, and the Dinkas, who are strong but lazy. The Dinkas are noted for their cattle and herds of horses and sheep. These people have black skin and flat noses and very thick lips. They live chiefly on their flocks and herds or on fish and roots. They do not kill their cattle, but keep them only for their milk and butter, which form their principal food. The Niams are a round-headed, chocolate-brown people, with long, thick, woolly hair. They live in the far-southern part of

the Sudan, adjoining the Belgian Congo. They are hunters and farmers and are said sometimes to practice cannibalism.

The people of the northern Sudan are mostly Arabs. They have straight or hooked noses, lips of medium thickness, and features not unlike ours. They are brown skinned and look like the Egyptians. Some of them are traders, noted for their fine camels.

The people we meet in Khartum and the country near by are tall, straight, and wiry. They are like our Indians in that they are proud of their power to resist pain and the young men sometimes engage in flogging matches to see who can endure most. Such matches are held in the presence of the young women of the village, who play quaint music while the contest goes on. The young men step into the ring two at a time, each clad only in a loin cloth, and armed with a long whip of hippopotamus hide. As the music strikes up, the two begin to flog each other. The whips make the blood come, and the struggle is continued until one youth falls exhausted. The man who can stand up the longest against all his fellows is considered the best. He is entitled to marry the belle of the village; he is the favorite of the women for some time thereafter, and bears the proud title of "the brother of the girls."

It is so warm in the Sudan that one needs but little clothing and in some places the people go almost naked, and the children entirely so. Some of the women wear a short apron of leather or skin fastened around their waists and some have in addition a strip of cotton cloth over the shoulders.

The most peculiar thing about the people of the Sudan is their hair. This is dressed in different ways in the different tribes and each individual has some strange way of treating his head. Some of the women shave their heads, while

others let their hair grow and cover it with a plaster of ashes made from cow manure, which turns it from a black to a dirty yellow. They think this blonde hair beautiful. Other women curl their hair in little corkscrews well loaded with oil and both men and women wear feathers in their hair and all the ornaments they can afford. A girl will have strings of beads around her waist, neck and arms, with sometimes a dozen brass rings extending from the wrist half way to the elbow. These rings are tight to the flesh; they cannot be moved back and forth. Some of the young women wear sleigh bells fastened to their short skirts. The Nubians cover themselves with oil and often add a plaster of ashes to keep off the mosquitoes. Sometimes red dust or gray ashes are put on in stripes; indeed, there are so many strange costumes that we cannot tell what they mean.

In the desert parts of the Sudan where water is scarce, tallow and grease take the place of water in bathing. The person who wishes a bath stretches himself at full length upon a mat and is then rubbed from head to foot with mutton tallow, scented with musk or other perfume. After this the entire body, every muscle and joint from head to foot, is well kneaded. This vigorous massage gives one, so the Nubians claim, a more delightful sensation than a hot water bath.

Let us visit one of the villages and see something of the Nubians at home. The huts are inside a fence, put up as a protection from robbers. Each hut is circular in shape and has a conical roof. There are neither windows nor chimneys, and the light comes in through the door. The floor is the ground, and the only ceiling is the covering of thatch. There is but little furniture. The people sit on the floor and more often outside the huts. A rude bedstead with a mattress of ox-hide strips stands in a corner,

Some hairdressing styles of the upper Nile region. Each tribe has its own fashion.

and some goatskin bags, a granite slab, a clay griddle, several earthenware pots, and some beautiful baskets are piled up at one side. The granite slab is the mill of the family; upon it millet and other grains are laid and pounded or crushed to a flour. The pots, griddle, and baskets are the cooking utensils. The pots are for soups and stews, on the griddle is fried the sour bread which forms one of the chief foods, and the baskets are the water buckets.

But how can one carry water in a basket? He cannot in baskets like ours, but these are different. They are made of straw so tightly woven that they will hold water. They are used as milking pails, and sometimes milk is boiled in them. But will not a straw basket burn if one holds it over the fire? Yes, but the Nubians do not boil milk in that way. They set the baskets down on the ground and drop hot stones into them, putting in more and more until the milk boils. They cook meat on red-hot stones, turning it from side to side until it is thoroughly done.

The people are hospitable. They give us what they have and often refuse to take pay, although they accept our presents on leaving. We find it especially difficult to make them take pay for milk; for the Nubians think that if they do so, their cows will go dry.

Among the most interesting of Nubian sports is ostrich hunting. The ostriches are chased by parties of three or four men on horseback. The men look first for the nests, and when they find one with an ostrich sitting upon it, they station themselves near it on their horses at some distance apart. Then one rides toward the nest. As soon as the ostrich sees him, it jumps up and runs off. For a short distance it can go much faster than a horse. It usually travels for a couple of miles in a straight line and then circles around so as not to get far from its nest.

Now one of the men gallops after the ostrich until his horse is tired out. He then gives a signal, and another man on a fresh horse starts in, and so they go on until the big bird drops exhausted to the ground. Now the hunters jump down and chop off its head with their swords, seizing the long neck and thrusting it deep into the sand that the blood may not soil the precious feathers.

1. Explain why Egypt is called the "Gift of the Nile." From what highland has most of the soil come? Locate the Delta and explain what the word means.

2. How is Egypt watered? What great dam helps in the work? What is a *sakiyeh?*

3. Compare the Nile with the Mississippi-Missouri. In what great lake is its source; in what sea its mouth? What are its two chief tributaries? From what country do they come? Why do they benefit Egypt?

4. Take a trip through the Nile valley and tell what you see. What are the chief domestic animals? Who are the people?

5. Visit the cotton fields and describe them. Compare them with our cotton fields. (See Carpenter's "North America.") Why does the United States, the chief cotton country of the world, import Egyptian cotton? How does the Egyptian cotton crop compare with ours? (For further information about cotton see "Carpenter's "How the World is Clothed," pages 14–50.)

6. Name a fruit which we get from Egypt. How is it grown? (See Carpenter's "How the World is Fed," page 281.)

7. What is the chief port of Egypt? Why? For what was the place noted in the past?

8. What is the population of Egypt? Compare it with that of Algeria; with that of Maryland. Who are the Egyptians? What are the principal religions? What is the government of Egypt?

9. Take a donkey ride through Cairo and tell what you see. Visit the great university and compare it with an American school. Compare the native and European sections of the city.

10. What are the Pyramids? By whom were they built and why? Describe the interior of the Great Pyramid. What is the Sphinx?

11. Tell all you can about Egypt and its history. Where is it mentioned in the Bible?

12. Locate the Suez Canal. Why was it dug? When? Compare it in length and cost with the Panama Canal. Why is it especially important to Great Britain? Take a trip through it and compare it with the Panama Canal. (See Carpenter's "North America" and Carpenter's "South America.")

13. Locate the Anglo-Egyptian Sudan. Compare it with the United States. Show why a city has grown up at Khartum. Describe some of the inhabitants of the North Sudan; of the South Sudan. Visit a Nubian village. Mention some of the wild game, and tell how ostriches are hunted. (For further information about ostriches see Carpenter's "How the World is Clothed," page 230, also Carpenter's "South America.")

XVIII. THE ROOF OF AFRICA—ABYSSINIA

WE have been climbing for days since we left Nubia. We came up the Blue Nile from Khartum and then took mules for the high lands. We are now on the plateau of Abyssinia on what might be considered the roof of the continent. There are some higher mountains still farther south; but Africa has no other country on the average so high as this. The average height of the plateau is about that of our western highlands. It is more than half a mile higher than Mount Washington, with snow-capped mountains as tall as Pikes Peak rising high above it.

Abyssinia is so beautiful that it has been called the Switzerland of Africa. It is more than fifty times as large as Switzerland, and about six times the size of New England. The plateau is made up of tablelands rising one above the other. Here a great gorge cuts its way through, there the plain falls off in a precipice a thousand feet deep, and some miles farther on, it rises in bluffs to the plains above. In the northern part of the country is Lake Tsana (tsän′ä), and down the sides of the plateau and running

through it, now falling in cataracts and now raging in torrents through narrow canyons, flow great rivers, some of which lose themselves in the sand; and others, such as the Atbara and the Blue Nile, go on to the Nile proper, giving food and water to Egypt.

We have already seen how Egypt is the child of Abyssinia in that its rich soil, carried down by the rivers, has been spread over the desert. What must be the nature of a land that has furnished such soil year after year and age after age? It must be very rich, must it not? We might consider this country an island of the richest soil rising high above a sea of deserts and swamps. Situated in the tropics, the water-laden winds of the Indian Ocean strike its cold mountains, so that at certain seasons the rain comes down in torrents, washing the soil into the valleys and filling the rivers which spread it over the country below.

We notice the wonderful fertility of the land as we travel from place to place. The plateaus rise one above the other, each with its own plants, trees, and flowers. In the lowlands it is hot, and there are dense jungles of bamboo; there are fields of sugar and cotton and the fruits of the tropics. Higher up, coffee is grown, and still higher, all the plants and grains of the temperate zone.

In many parts of Abyssinia coffee grows wild. It thrives especially in one province, and from there, it is said, the first coffee beans were carried long ago to Arabia, and thence spread all over the world. The name of this province is Kaffa, and from it comes the word, coffee. The natives there do not cultivate the coffee plants, but the soil is such that the plants grow into trees so large that they are sometimes cut down and made into boards. In the province of Harar the coffee is cultivated. Here the beans are long and well shaped. They make fine coffee and are

known to commerce as the long berry mocha. Coffee grows well everywhere in the country where the land is from forty-five hundred to six thousand feet above the sea.

The soil of Abyssinia is so rich in places that it gives four crops a year. The people are lazy and plant only enough for their needs. They raise little patches of corn, wheat, durra, sorghum, and canary seeds, which they grind into flour for bread. Cotton grows wild, and nearly every vegetable of the United States may be found here.

Much of Abyssinia is like a great park, with clumps of trees here and there; it has pastures so rich that they support large flocks of sheep and goats and droves of ponies and donkeys and fine cattle with humps on their backs. The hides and skins of the cattle, sheep, and goats form the principal exports and tens of thousands of them are shipped by Abyssinia to the port of Aden, Arabia, and thence to the United States, where they are used for making shoes.

The country has also vast undeveloped mineral resources, including iron, copper, sulphur, and coal, and its water powers will some day be harnessed by electricity. At present the people are backward in industry and commerce. Much of the trading is by barter, and one of the most common articles of exchange is American cotton cloth, which takes the place of money. Salt is also used as money. It comes from a dry salt lake near the Red Sea. It is made into bars about a foot long and two inches thick. If the bar is cracked or chipped or does not ring right, the people will not accept it. Every one carries some of this money with him, and when two persons meet each breaks off a piece of salt and offers it to the other, just as some of our people offer their friends cigars. Each eats the salt, and, then, bowing low, goes on his way. We soon fall into the custom and carry salt sticks in our pockets,

as strangers often ask us to have a bite of salt with them upon meeting.

In addition, there are silver dollars worth about fifty cents, gun cartridges which pass for two or three cents apiece, and, far back in the interior, strips of iron each worth one or two cents. We carry some of all kinds of money with us, and have no trouble making our way, as we have a permit from the empress to go through the land.

The luxuriant grass of Abyssinia makes the country a fine place for game. There are thousands of antelopes, zebras, and ostriches, and one may sometimes see a hundred elephants marching together through the woods. The elephants can be killed only through the permission of the government, which takes one half of the ivory. Most of the Abyssinian ivory is sent to Aden and the best of it is exported to the United States.

There are many hippopotamuses in the rivers of Abyssinia and we are on our guard against the leopards and lions as we go through the forests. The Abyssianians are famous lion hunters, and some of the warriors wear lion skins on their shoulders. When the President of the United States sent an embassy to Abyssinia a few years ago, the emperor of the country ordered two lions to be sent back to him as a present. There are many wild birds with beautiful plumage, and bees are so common that the favorite drink of the people is a fermented mixture of honey and water.

The Abyssinians number eight or ten millions. They are not unlike some inhabitants of the Sahara. They have black or brown faces with features much like our own. They are tall, straight, and fine looking. They dress in cottons, most of which come from our country. The men wear long robes of white, with a red stripe a foot wide woven through the middle. Under this robe they have

shirts and tight drawers. The richer men have cloaks of silk or velvet thrown over their shoulders, and a few wear lion skins as signs of rank.

The poorer class of Abyssinian women wear white cotton dresses; they go barefooted and often bareheaded, although some have shawls tied about their heads. The richer women often travel upon mules, accompanied by soldiers. Their dresses are usually cotton, although some have capes of black satin and broad-brimmed felt hats over which they wear veils of silk. Both rich and poor have a cord around the neck, to which are tied crosses, ear picks, and charms. The children dress much like their parents, except in the hot lowlands, where they wear almost no clothing.

The Abyssinians live in small villages of round huts made of poles thatched with leaves and grass. There are but few towns, and about the only place that can be called a city is the capital, where the empress lives. This, during recent years, has been at Adis Abeba (ä′dĭs ä-bā′bä), in about the center of the country. It lies on a high plain with a mud wall around it, and is more like a great camp than a city. Its houses consist of these same round, tent-shaped mud huts and a number of large buildings which are the palaces of the empress.

Abyssinia is now ruled by an empress and the government is much the same as that of Europe in feudal times. There are four classes of people—the ruling class, the priests, the soldiers, and the peasants. The provinces are governed by military chiefs appointed by the empress. Each chief has his own soldiers and under them are the peasants, who do most of the work and give a large part of what they raise to the government. The chiefs expect every one under them to fight in time of war, and boys are trained to be soldiers long before the age at which our boys leave school. At

eight or ten a boy will become the servant of a soldier. He walks before the soldier in time of peace, carrying his gun, which he is expected to keep clean and in good order. He helps take care of the horse and mule of his master, and learns to walk far without tiring. We try a race with some of the boys and find they outrun us. They climb up hill and down at great speed, keeping along with the troops on the march.

We buy ponies and mules, and ride from place to place. There is only one railroad, and that is from Jibuti (jē-bo͞o-tē′) on the coast, to Adis Abeba. The distance is about five hundred miles. The country roads are mere tracks, and much of our travel is up and down hill.

We have little trouble about food. We shoot game on the way, and buy chickens, mutton, and beef in the native markets. We do our own cooking, for the Abyssinians prefer their beef so rare that raw meat is served at nearly every feast. They put red pepper on such meat and sometimes make pellets of raw beef filled with red pepper and onions and eat them. Their bread is in thin, flat cakes of about the size of a handkerchief; it is damp, flabby, and often sour.

The common Abyssinian eats sitting cross-legged or squatting on the floor, and at each meal he has a pile of these bread cakes beside him. He uses the top one as a napkin. The second he folds up and dips into a bowl of melted butter in which red pepper is mixed, and when it is well soaked he squeezes it up in his hands and crams it into his mouth. He consumes his meat in large slices, putting one end of the slice in his mouth and cutting off as much as he can hold there by a stroke of his knife or sword, the other end of the slice being held in the hand. Soup is often served with meat. In such cases the bread

is soaked in the soup, and the meat is then taken out and laid on the soaked bread. At the feasts of the better classes, servants are sometimes required to eat a bit of each dish before the others partake, to show that it is not poisoned.

These people have a low state of civilization. There are no schools to speak of, and but few can read and write. They have an alphabet of thirty-three letters instead of twenty-six as ours has. They have their own calendar, dividing the year into twelve months of thirty days each and adding five extra days at the end to make the year come out even. The last five days are holidays. Every leap year they have an extra holiday.

Most of the Abyssinians are Christians; but they are superstitious, their religion being somewhat like that of the Copts of Egypt. We visit the churches and listen to the dark-faced priests singing the service while other priests go about through the audience swinging urns in which incense is burning. Each priest wears a robe decorated with silver. Sometimes the bishop carries about a silver cross and allows each of the worshipers to kiss it. There are no seats in the churches and every one stands leaning on a stick while he listens. We are handed leaning sticks as we come in; and the girls are told to go on one side of the church with the women, while the boys are led to the other side with the men, a white curtain separating the sexes.

We spend some time in Adis Abeba. The town, about ten miles in circumference, is made up of villages of low huts scattered around the palace, and has comparatively few large structures. The streets are wide but rough and unkempt. They are shaded by eucalyptus trees. Most of the business is done in the market place, which is the largest

in Abyssinia. Near this is a bank, a customs house, and telegraph and telephone offices. The railroad station is not far away and here we get trains which take us through the town of Harar to the port of Jibuti on the Indian Ocean.

1. Where is Abyssinia? Compare the plateau in height with Mt. Washington. Compare it in size with Switzerland; with New England.
2. What is the character of the soil? Why is this important to Egypt? Mention some of the principal crops of Abyssinia. Where is coffee raised? From where did the coffee bean first come? What are the coffee countries of the world? Which raises the most? How is the crop grown? (See Carpenter's "How the World is Fed," page 297, and Carpenter's "South America.")
3. What minerals are found? What kind of water power would such a land naturally have?
4. Describe the Abyssinians. What is their government? Their religion?
5. What is the capital of Abyssinia? How do we reach it from the Sudan? How do we go from the capital to the seacoast?

XIX. ACROSS KENYA

WE find a small ship at Jibuti upon which we take passage for Aden, Arabia, the port of call for most of the steamers which pass from the Mediterranean through the Suez Canal and the Red Sea on their way down into the Indian Ocean and along the coast of East Africa. The distance to Aden is only one hundred and thirty-five miles, and within less than a day we are at one of the English hotels of that port. The next day we get a steamer for Mombasa, an island close to the mainland of Africa four degrees below the equator, and are soon on our way down the coast.

At Mombasa we stay in a modern hotel. The town has many European residents and tourists.

During this voyage we skirt the land of the Somalis, a semi-savage race of blacks who inhabit the coast country south of Abyssinia. The land is large but is almost all desert, containing few people. It is divided into three colonies: French Somali Coast at the north, British Somaliland just south of Aden, and Italian Somaliland, which runs along the coast from Cape Guardafui to the boundary of Kenya (kā′nē-ä). British Somaliland is a little larger than the state of Missouri, but its population is only about three hundred thousand, consisting of Mohammedan nomads who roam about with their cattle and camels from pasture to pasture. The British have a little army mounted on camels to keep the people in order.

Italian Somaliland is about four times as large as British Somaliland and its population is more than twice as great.

The people are of much the same nature. They are engaged in agriculture and stock raising, and there are some cultivated farms.

Mombasa is the port for British East Africa, or Kenya, as the colony has been called since 1920. It is on the edge of Tanganyika Territory, which was formerly known as German East Africa, but which by the World War has come under British control. Mombasa is also the port for the British protectorate of Uganda which lies in the highlands about as far inland from the Indian Ocean as Ohio is distant from the Atlantic. There is a railroad which goes in from the port and we shall be able to ride into the heart of the continent by train.

We are interested in Mombasa. It is a thriving city with good hotels and playgrounds for cricket, football, and other sports. It is inhabited by people from Asia, Africa, and Europe. The Africans are Mohammedan traders, in turbans and gowns, and black-faced people from the mainland, who act as servants and do most of the hard work. The Asiatics are largely brown-skinned Hindus, who have come from India to engage in storekeeping and banking, and to act as clerks on the railway. The Europeans are British officials and merchants, and also Germans and French who have come here to trade.

Many of the natives are almost naked, although they delight in jewelry of different kinds. The women have holes in the lobes of their ears and often along the whole outer rims, and wear buttons of gold, silver, and other metals in them. Some have nose rings, and some have buttons in their nostrils. Many of them look like negroes, and others, not so black, have features almost as regular as our own.

Leaving Mombasa by train, we cross the bridge over

the strait to the mainland, and are soon on our way through the wilds of eastern Africa. The railroad is a narrow gauge, and the cars are quite small. Now and then we pass a train loaded with bales of hides, India rubber, tusks of ivory, and also cattle, sheep, donkeys, and goats. We learn that horses, mules, donkeys, sheep, and goats are often carried on the same train with the passengers. A horse goes as a first-class fare, a donkey pays second, and a sheep or goat is carried at the third-class rate. This may be different as the traffic increases.

Now we have left the seacoast and are far back in the country climbing the hills. We rise rapidly, and at Kiu station we enter the Athi plains, a vast rolling country covered with grass supporting countless herds of game. We cross these plains to Nairobi, the capital of Kenya, and the most important railway and military station on the line, where we stop a few days to enjoy the beautiful scenery.

Nairobi lies on a plateau in the heart of Kenya and three hundred and twenty-seven miles from Mombasa. It is about a mile above the sea, so high that the altitude conquers the equatorial sun and white men can live there all the year round. The town has English hotels and good stores. It has the government offices and is the headquarters of the railway. Nairobi is sometimes called a tin town, because so many of its buildings are of galvanized iron. We stop in a sheet-iron hotel, shop in iron stores, and get money on our letters of credit in a sheet-iron bank not far away. The town has golf links, football grounds, tennis courts, and daily and weekly newspapers. The country about Nairobi is taken up by English settlers. Some of them have large estates worked by the Africans. The town is much visited by tourists who come here to shoot the big game found in the wilds. It has stores where

The boys and girls of Kenya must do their share of the work. The girl at the left carries a baby, and the boy next to her is pounding corn into flour.

Many of the natives of Kenya wear ear plugs. This man is adorned with a jam pot three inches in diameter.

we can buy the powerful guns needed for killing elephants, hippopotamuses and lions. Mount Kenya and Kilimanjaro (kĭ-lē-män-jä′rō) can both be seen from Nairobi, and the climate is delightful.

Going onward, we rise gradually to a distance of more than a mile and a half above the sea, passing through the great Rift valley, and then descend to Port Florence, situated on the shores of Lake Victoria.

Most of our journey over the Uganda Railway, as this line is called, is through the wilds, now over plains and now through dense forests. We pass many native villages and strange people curiously dressed, who stand and watch the train as it goes whizzing by. Now an ostrich races along almost even with the car windows, and now we see a great herd of zebras galloping away. In crossing a stream we surprise a hippopotamus wading along the marshy banks, and the conductor tells us the rhinoceroses have at times charged the locomotives, and that when the road was building one butted a caboose that stood on a down grade so that the brakes loosened and the cars smashed into a

little railroad station, half wrecking it. There are also antelopes of different kinds, and at night we hear the hyenas howling out their *hoo-yee-yoo!* The railway for a mile on each side of the track has been declared a game preserve and no one is allowed to shoot wild animals there. The animals seem to have had news of this fact. They do not run from the train and we see droves of zebras and gnus feeding within pistol shot of the cars.

The natives of Kenya are extremely strange. There are many different tribes, each with its own customs. We see villages of low huts built in a circle so that the cattle can be kept inside at night. The houses are long and narrow with doors so arranged that sheep and goats run in and out at will. Some villages have fences of thorns about them to keep out the wild beasts. We see cattle and sheep feeding, watched by dark-skinned shepherds, and now and then a warrior, his head decorated with ostrich feathers and his body painted to make him look fierce. He carries a shield, lance, and sword, and might be dangerous if we met him alone in the wilds.

The natives gather around the cars as we stop at the stations. There are black-skinned men and boys with great holes in the lobes of their ears, in which pieces of wood or other things are inserted; and girls with shaved heads who wear as ornaments telegraph wire wound about the legs, arms, and neck so tightly that only a blacksmith can remove it. Some are dressed in calicoes, and others have bullock hides wrapped around them. In another province the women wear short petticoats of bark cloth.

The children have almost no clothing, but even the little boys have holes in their ears so big that they can put two fingers through them. These people inhabit the slopes of Kilimanjaro and Mount Kenya, and the high plateau

When in full war dress these natives of Kenya carry shields and spears and wear headdresses of ostrich feathers.

region between them, which is rich in forests and pastures. They are noted as cattle breeders and as warriors.

Farther west we see other strange races, each having its own customs and dress, and at Port Florence at the end of the railway upon Lake Victoria are the Kavirondo, a tribe of blacks who go almost naked, the men having an apron of cowskin which falls from the waist at the back. The women wear little more, and many of the people have no clothing whatever. We are now almost on the equator, and the weather is hot. The Kavirondo are stock raisers. They have herds of cattle with humps on their backs like the cattle of India, and many flocks of sheep and goats. Many hides and skins are sent from Kismayu over the railway to Mombasa for export to the United States.

Kenya, which we have crossed from east to west, is one of the most important of the British possessions in Africa. It is larger than either Germany or France, and has a population of several millions. The land for the most part consists of a vast plateau so high above the sea that the climate is fitted for white men. It is a land of farms, with many English settlers. The crops are of many kinds, according to the altitude. In some of the lowlands cotton is grown, while on the highlands corn, oats, barley, wheat, and potatoes are found. There are many sheep farms, and some of the settlers are rearing ostriches for their feathers. The colony is said to have minerals, including gold, iron, and fertilizers of various kinds.

XX. A VOYAGE ON LAKE VICTORIA

WE are on Lake Victoria this morning. Our vessel is a little steamer manned by British and African sailors, and we are moving rapidly over one of the greatest lakes of

Our steamer on Lake Victoria is many times the size of the boat in which Stanley first navigated the lake. His boat was made in sections, as in the inserted diagram.

the world. Lake Victoria is next to Lake Superior the largest body of fresh water on earth. Lake Superior is far inland in the heart of the North American continent. Victoria is about six hundred miles from the sea, and six times higher than Lake Superior. It is within five hundred feet of the altitude of the Great Salt Lake. The lake is surrounded by Kenya, Uganda, and Tanganyika Territory so that it is controlled by Great Britain.

Leaving Port Florence, we are soon far out from the mainland. The waters extend on all sides as far as our eyes can reach, and only islands are in view. Some of the islands are high and rocky, others are low and bordered with swamps in which huge black hippopotamuses are

swimming. We can see their enormous heads bobbing up and down in the water.

Traveling onward, we approach the coast. The landscape reminds us of that along our Great Lakes. Much of the land is free from trees, and here and there are clumps of dark-green woods. On the hills of the shore we see what look like wheat fields or corn fields, the shocks standing out against a background of yellow. We ask about the grain, and are told there is none, and that what we think are wheat shocks are really the homes of the white ants, great mounds of clay twice as high as one's head.

As we steam around the lake we now and then call at an island and make short excursions through the villages along the shore. At some places the natives are fierce and we hardly dare to land. They hold up their shields, and shake their spears at us. At other ports the people are more friendly and we are treated to roast kid, clotted milk, bananas, and sweet potatoes.

The costumes of the natives grow more and more interesting, especially their jewelry. Near Port Florence, the natives twist iron wire about their arms, necks, and ankles as ornaments. The woman shave their heads. They have bracelets of ivory and necklaces of shells. In the next province, Usoga (o͞o-sō′gä), the women wear bark petticoats, and men have clothes of bark or cotton. In another province near by, the girls wear a string of beads about the waist until they are married, when they put on bark-cloth skirts. On the west of the lake some of the people wear clothes of grass and skins. We shall find new and odd costumes every few miles.

The villages of this part of the world are much alike. In Kavirondo they are made up of little round huts with conical roofs thatched with grass; and in Usoga the ordinary

At Ripon Falls, where the Nile flows out of Lake Victoria, the water drops thirteen feet.

house makes one think of a haycock. There the villages are often surrounded with fences of thorn bushes to keep out the wild beasts, and the houses are built in a circle around an inclosure where the cattle, goats, and sheep are kept at night. We see many such animals near the villages on the banks of the lake.

In our tour of the lake we make our way first to Napoleon Gulf, at the north, to visit Ripon Falls, where the waters flow out, forming the birthplace of the Nile. The falls are not more than thirteen feet high. Here we can stand on the high banks and look down upon the Nile at its beginning. Great fish are leaping high into the air, and dark-skinned natives are standing upon the rocks spearing them with harpoons as they jump. We are surrounded by green forest trees, in which odd birds sing. The rocks through which the waters flow are covered with white, the guano of the cormorants and other birds which make their homes here.

Where the Nile flows over the falls the channel is about one quarter of a mile wide. The stream below is deep and narrow and goes on for forty miles in a swift course broken by a series of cataracts. Farther on it is quiet and then come more falls and later, swamps filled with crocodiles and hippopotamuses.

As we study the falls we think of their great electrical possibilities and wonder whether this may not some day be the seat of many industries. The land about the falls will raise cotton and there may be cotton factories here run by electricity. There are forests not far away, and saw mills and planing mills could be operated by this power. There is iron ore on the highlands of Africa and they may yet be turning out steel rails and cars away up here at the source of the Nile. Already a railway has been built along the

We see many natives near Lake Victoria. The woman wears a bark-cloth skirt, and covers her arms and legs with telegraph wire.

rapids connecting the falls with Lake Basaga through which the Nile flows.

Leaving the falls we cross Lake Victoria to the mouth of the Kagera (kä-gā′rä) River, the largest stream that flows into it and therefore said by some to be the real source of the Nile. We travel some distance up this river through lands inhabited by black people scantily dressed in skins and aprons of grass. They are barefooted and bareheaded. Some have tattooed breasts and arms, and others shave their heads in patches so as to leave rolls of hair on parts of the head. They are excellent blacksmiths, and we buy some of their spears and knives to take home as trophies.

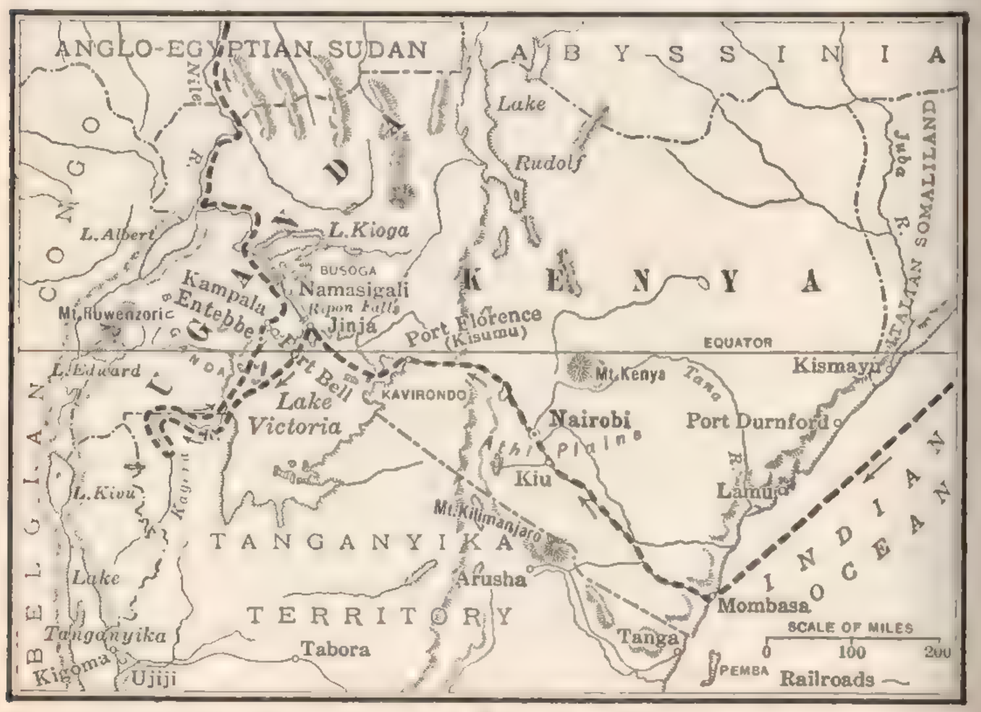
On our return down the river we notice more people dressed in bark clothing, and at one of our stops we have an opportunity to see how bark cloth is made. The cloth comes from a stately tree with small green leaves, a straight stem, and many branches. The bark is taken off by making two cuts around the trunk, several feet apart and then a third cut down the trunk between them. By this means a cylinder of bark is torn off in one piece. The bark is now soaked in water until it is soft, and then pounded flat on a smooth, wooden log, when the rough outer coat comes off, leaving the soft inner coat, which is almost as fine as woven cloth. The color of the bark is now reddish brown. It may be used as it is, or dyed, or decorated with patterns.

Such cloth is worn by both men and women; sometimes in gowns that fall to the feet, sometimes in short petticoats, and again as skirts and cloaks. The ladies of Uganda, it is said, like the rustle of their bark-cloth dresses, when they are new and stiff, just as our ladies like that of silk skirts. More popular cloths, however, are the cotton and calico imported from abroad. Some of these come from

England and some from Bombay in India; but the best and highest priced cotton is from the United States. It is known as Americana and is sold all over Africa.

XXI. IN UGANDA

LET us take a seat on the mud verandah of the mud hotel of Entebbe, the chief port of Uganda, before we explore the surrounding country. We had best keep our hats on as there are lizards and scorpions in the thatched roof overhead and some of them may fall down upon us as we talk. We shall tie our shoes tight, too, and by no means rest our bare feet on the floor. It is true it is plastered with cow manure which has hardened and ought to keep out ants and the chiggers. These insects have a way of crawling



Our travels across Kenya and Uganda.

in under one's toe nails and laying little sacs of eggs under the skin, which if they hatch may cause us the loss of our toe.

Do you see that black band moving across the path there in front? It is made up of warrior ants which will attack you if you come near them. Their bite is like red-hot pincers and their heads will be torn from their bodies before they let go. They are far more dangerous than that baby lion who is tied to a tree not far away, with a clothes line about his neck. He was brought in last night by a traveler from Lake Tanganyika. He is not old enough yet to know how strong he is.

Many of the children in Entebbe go to mission schools and wear American clothes.

Notice how beautiful the land is all about us. Uganda is one of the most interesting of the African provinces. It is nearly twice as large as the state of Illinois and has grassy plains, lofty mountains, dark valleys and many beautiful lakes.

The best soil is a rich red. There are hills of fine pasture, dense woods filled with big game, swamps choked with

papyrus reeds, in which crocodiles and hippopotamuses are found, and other regions where the grass is ten feet high. There are also vast stretches of meadow land, spotted with groves of beautiful trees and dotted here and there with villages, around which are small gardens and farms.

The people of Uganda have a higher civilization than any of the other tribes of central Africa, with a government of their own which they manage under the British. There is a king and a native assembly which rules the people through the chiefs. The natives have courts and police, and there are many mission schools here and there over the country.

The people of Uganda number over three millions, consisting of various tribes, some of which are much more civilized than others. Some of the natives are like those we saw along the upper Nile and in the Sudan; a few are pygmies, or full-grown men and women of dwarfed stature. The most civilized are the Buganda, comprising about one fifth of the whole population. These people are intelligent, having their own system of numerals based on decimals. They are anxious to learn, and welcome the Christian missionaries who are working among them. A great native cathedral has been built by them in which services are held every Sunday.

The Buganda are polite, neat, clean, and modest. They all wear clothing, either of bark cloth or cotton; although some of them take their clothes off when they are at work in their huts. This we suppose is to keep the clothes clean. They are hospitable, and we have no trouble in learning just how they live.

The huts of the Buganda are perhaps the largest and best in all Africa. They are much like haystacks in shape, rising from the ground in a cone. The doorway is cut in

The roof of the Uganda hut is thatched with grass and rises to a peak in the center.

the side of the hut, with a bonnet-like projection over it. The houses are made of framework of wood, covered with reeds, faced with grass mats and laced with sticks or bark. The walls are thick, and the houses are comfortable.

Entering one of these homes, we find that the roof is supported by many poles, so arranged that they divide the interior into two compartments, front and rear. In the back, around the wall, are bunks in which the family sleeps at night. Grouped around the chief huts sometimes are smaller ones, where the women work, making wine, drying tobacco, or grinding flour. Some dwellings have separate huts for kitchens; others are quite small, the cooking being done over a fire hole in the center.

The floor of such a house is the ground. It is covered with soft grass, a new carpet of this kind being spread upon

the old when it becomes dirty or wet. Some families let the chickens, goats, and sheep sleep indoors at night, and we find that their dwellings are none too clean after all.

These people have but little furniture. The ordinary family is satisfied with a few stools, a half-dozen earthenware pots, some wooden bowls, and basins made of wicker or grass. The bark-cloth clothing and other treasures are tied to the roof, or hung upon the poles which uphold it. There may be spears, shields, and hoes standing against the walls of the hut.

The villages are usually situated in groves surrounded by pasture lands. The people own fine cattle, with humps on their backs, and also fat-tailed sheep and goats. They raise chickens, and have dogs which seldom bark. Nearly every family has a garden of sweet potatoes and other vegetables, and some have patches of grain, sugar cane, and coffee.

We see banana groves everywhere, not only here but in the other states of central Africa; and are told that the banana tree is the most valuable to the natives. It gives them food and drink, and they use it for string, soap, timber, and clothing. The green fruit is cooked as a vegetable, and when ripe it serves as a dessert. The banana is, in fact, the chief food of these people, taking almost the same place that wheat and corn do with us. The green bananas are tied up in banana leaves and steamed until they are well cooked; the flesh is then floury, sweet, and palatable, and when dried may be made into flour.

Banana leaves are used to thatch houses; they serve as tablecloths and napkins; they take the place of paper; they are the covers for milk and water baskets. The stems of the banana tree are sometimes made into fences, and their pith is scraped out and used as a sponge. The fibers

The Christian cathedral near Kampala holds 5000 people, who sit on the floor during the services.

Native cattle have enormous horns.

form excellent cord; and may be woven into sun hats and mats.

There is an intoxicating drink made from the banana, which might be called banana brandy; and another, less strong, which might pass as banana beer; while a third banana drink is not intoxicating at all. If the natives have bananas in plenty, they thrive; if not, they are likely to starve.

The people of Uganda are glad to help us about. We find them kind and hospitable, and far superior to those we met on our tour of the lakes. The men are skillful blacksmiths and the women weave beautiful mats and basket work, using the leaves of the wild date palm.

We are delighted with the children, and now and then stop to play games with them. The boys are fond of wrestling; they play ball and throw sticks in a remarkable way. They learn to hurl spears and to use shields to protect themselves, and fight many sham battles. Among their duties is watching the cattle and sheep; but their happiest days are when their fathers or brothers take them out to trap the many kinds of game for which the country is noted.

We have but little trouble making our way through Uganda. We ride in jinrikishas to Kampala and pass many of the villages. There are good roads and a motor car service between the principal towns. The Busoga railway runs from Jinja on Lake Victoria near the falls of the Nile northward along the Nile rapids to Namasigali, connecting Lake Kioga with Lake Victoria. There is also a railway about eight miles long from Port Bell on Lake Victoria to Kampala. The Busoga railway was built to reach the cotton plantations around Lake Kioga. The mails are carried largely in motor cars, and telegraph lines connect most parts of the kingdom and the country with other parts of Africa. All of these improvements are engineered by the British.

During our stay we talk much with the British officers about the future of central Africa. They point out the richness of the soil and its value for grazing, telling us that Uganda will some day be one of the chief cattle-raising countries of the world. They show us little cotton plantations and orchards of rubber trees ready for tapping. They describe how the railroad now planned from Cairo to the Cape of Good Hope will eventually be extended northward through this region, connecting the great African lakes and the Nile with the road from Khartum to the Mediterranean. This will give a steam route north and south across Africa, bring the several parts of Africa into closer relation with the world, and will make many other changes in the progress of this faraway land.

Elephants are so strong that they can make their way through the thickest jungle.

XXII. ELEPHANTS AND IVORY

ELEPHANTS are found in Asia and in Africa, but the largest and fiercest come from Africa and especially from the region where we are now traveling. The African elephant differs from its Asiatic brother in that it has larger tusks, a more sloping forehead, and wide flapping ears.

The elephants of Asia are sometimes caught and tamed. They are used as beasts of burden and are made to work in the lumber yards. In parts of India, Burma, and Siam, people travel from place to place upon them, and the rajahs, or princes, ride them when they go about in state. The African elephant seldom becomes tame. It lives in the forests or on the plains of the wilder regions of the continent. It is hunted for its ivory tusks, and is gradually being exterminated in those regions where white men are settling. About seventy thousand elephants are killed every year.

In some of the African states, elephants are almost as great a curiosity as buffaloes in our country; but in the Congo valley, the Sudan, and the highlands of central Africa, where we now are, they roam about in vast numbers, and we may often stumble upon herds as we go through the forests.

Elephants travel in company, parents and babies, old and young, moving along together. Sometimes several hundred may be seen marching from one place to another, the mothers and children going in front while the father elephants come behind, protecting the rear. The fathers are larger and stronger than the mothers, and will fight for their families. The mothers will also fight. Elephants are fond of their young, and it would be dangerous indeed

for us to try to steal a baby elephant. Besides, it would take more strength than we have to carry one away; for the ordinary elephant baby weighs as much as a big fat man and it grows fast.

The elephant is the largest beast known. There are many in Africa which weight four to five tons, and have such big legs that one might take them for trees if he were looking along the ground through the forest.

Notwithstanding their size, these animals travel rapidly. Their weight enables them to crash through the jungles. They step lightly with their huge feet, and when traveling will go for days at an average speed of six miles an hour. They can swim rivers and climb up and down hills, so that it is difficult for men to keep up with them.

The head of the elephant is the most remarkable part of its body. It is of enormous size, with little eyes, not much larger than ours, a long nose or trunk, and tusks larger than those of any other animal.

The elephant's trunk is so important to him that he could not possibly get along without it. It serves as both hand and nose. If it should be cut off he would starve, for his neck and tusks would not allow him to get his mouth to the ground, and he could not drink. The trunk is as flexible as india rubber. It has hundreds of different muscles running through it in almost every direction, and it can be stretched or shortened at will. At the end there is a kind of fingerlike lip with which the animal can pick up a blade of grass or the smallest thing from the ground. The lip is very strong, as is the whole trunk. The beast pulls off reeds, branches, and herbage with his trunk. He rears up on his hind legs and tears down young trees, or bends them over into his mouth so that he may eat the tender shoots and leaves.

In drinking, the elephant first sucks the water into his trunk, and then squirts it into his mouth. He often sprays his body in this way, giving himself a shower bath. He uses his trunk to feel with, rubbing it over his baby to pet it. When angry he throws the trunk high into the air and blows a trumpet blast through it, and when attacked he sometimes pounds his enemy to death with it.

There are two other parts of the elephant's head which are even more interesting. These are the tusks, or great hornlike teeth, which grow out of each side of its mouth. Every elephant has two tusks; and in addition six great teeth within the mouth on each side of the jaw, above and below. The tusks are fitted into bony sockets, their roots reaching almost up to the eyes of the elephants. They begin to appear when the elephants are quite young, and continue to grow as long as they live. Some elephants live to be a hundred years old, and the older ones have tusks more than eight feet long, and so heavy that it takes four men to carry one across the country.

The tusks are a valuable article of commerce, and are among the things which Africa exports to all parts of the world. Ivory is worth so much that ships are sent to Africa for it. Men hunt elephants and carry the tusks for hundreds of miles through the forests to get money for them. In the past, most of this work was done by slaves, the Arabs and other strong races forcing them to carry the ivory. Sometimes slaves were exchanged for ivory, and the slaves were made to carry the tusks to the seashore, where both slaves and ivory were sold.

Elephants' tusks are of different sizes, according to the age of the animal. A large one may weigh two hundred pounds and be worth hundreds of dollars. A small tusk may not be so long as one's arm.

The ivory in this pile of elephant tusks is worth thousands of dollars.

The ivory of commerce comes not only from elephants thus killed, but also from those which have died generations ago. Many elephants die natural deaths in the forest wilds; some are killed by lions and other wild beasts. The skeletons are found by ivory hunters, and their tusks taken out and carried to the market. The native kings often have ivory stored away in their villages, and it is said that some have fences of tusks about their huts. They know that ivory is valuable, and save it as we save money. All such ivory is old, and not so valuable as the fresh ivory. It is known in the markets as dead ivory, while that which comes from the freshly killed beasts is called live ivory.

We shall have many invitations to go elephant hunting during our travels, but the sport is so dangerous that we shall hardly accept. The natives say it is more dangerous to hunt elephants than lions. The elephant is revengeful, and, if attacked, will run after his enemies and try to kill them. If he can get the hunters within range of his trunk he will knock them down with it and crush them to death with his tusks, or stamp on them with his huge feet.

The elephant has such a thick skin that heavy guns with large bullets are needed to kill him, and even then there are only a few places where a shot will prove fatal. If one can hit him just over the eye or back of the ears, or halfway between the ear and eye, there is a fair chance of killing him; there is also a place near the tail where a bullet may pass along the spine into the lungs, causing the animal to bleed to death. In such hunting the men must be wary, for the moment the elephant sees them he throws his trunk into the air, screams, hisses, snorts, and rushes at them. His brother elephants join him, and often the hunters are killed.

Notwithstanding this, the natives manage to destroy

many elephants. They sneak up behind one of the great beasts, and with a stroke of the sword so cut the tendons and arteries of his hind foot that he is lamed and bleeds to death. They arrange a snare, so that when an elephant stumbles upon it a heavy weight with a barbed spear fastened to it falls upon his back. The spear is sharp, and if its blade enters the elephant's lungs, it causes death.

After an elephant is killed, the tusks are chopped out with axes and the flesh is cut from the bones for food. The natives are fond of the meat, and they eat every part of the animal except the skin and bones. They make elephant soup, steaks, and roasts, and preserve some of the flesh by smoking it as we smoke beef.

The tidbits of the elephant are the feet and trunk. These are roasted in a peculiar way. A hole is dug in the ground and a fire built in it. When the earth has become thoroughly hot, all but the glowing coals are taken away, and the foot or trunk is laid upon them. Sticks are then placed over the top of the hole, closing it tight. After several hours this curious oven is opened and the roast taken out, the skin removed, and the meat is ready for eating. The foot thus prepared is so tender that it can be scraped out with a spoon, and many think it delicious.

XXIII. THE STRANGE ANIMALS OF AFRICA

AFRICA is the continent of big game. Its beasts are the largest and the most dangerous, and it has many strange animals not found in other parts of the world. There are vast territories which are still wild, and we shall be meeting odd creatures everywhere during our travels.

The leopard ranks next to the lion and the tiger in ferocity and strength.

We shall see more hippopotamuses and rhinoceroses as we go southward or in our travels through the Congo valley. The hippopotamus is found in many parts of Africa. It lives in the swamps or along the lakes and rivers, eating the grass and plants which grow in and near the water. These beasts always travel in herds; they are fond of one another, and now and then a mother hippopotamus may be seen swimming a stream with her baby standing upon her back.

The hippopotamus is not so large as the elephant, but is enormous nevertheless. It has a big head and a short, thick neck, with small eyes, and ears so high up in the head that they remain outside the water when the rest of the animal is almost hidden beneath it. It has twelve tusks in the form of teeth, strong enough to bite through

a small tree, and so placed that they cut grass or corn almost as if with a scythe. It has twenty-four other teeth, which it uses to grind its food. The tusks are valuable as ivory, and the animal is killed for them and also for its thick skin and flesh. The natives consider the fat which lies under the skin of the back a great delicacy. They are fond of the tongue, and make jelly of the feet. They also render out the fat for medicine.

Hippopotamuses are wary, and difficult to kill. Their skins are so thick that large guns must be used. The best place for a shot is just below the eye or at the back of the head between the ears.

The hippopotamus swims with the greater part of its body under water, often showing only its ears and nose. When alarmed, it dives, and may not come up for a long time. The natives hunt it with canoes, using harpoons to which large, wooden floats are attached. If the animal is killed, the floats show where it lies. Such hunting is dangerous, for the beasts will fight if attacked. They can not see far, however, and for that reason are easier to kill then elephants.

The rhinoceros is also dangerous. It is about as large as the hippopotamus and of somewhat the same shape. It has one or two large horns growing out of its nose, with which it can impale a man or even a horse. The word "rhinoceros," meaning "nose-horned," describes the only animal which has a horn growing from the top of its nose. These horns are of different lengths, according to the species, some being short and others three or four feet in length. The animal uses the horn not only for defense, but also to dig up bushes, small trees, and roots upon which it feeds. It has a lip somewhat like the elephant's, with which it can pick up small objects.

Some rhinoceroses have two or more horns.

The skin upon the back and sides of the rhinoceros is twice as thick as this book, although it is less thick over the abdomen. It makes excellent whips and is so used by the natives. They cut the skin into long, narrow strips, one end of which they tie to the branch of a tree. A heavy stone is fastened to the lower end of each strip to keep it stretched. After it has dried hard it is scraped round and smoothed off with sand or stone.

The rhinoceros, like the hippopotamus and the elephant, has an enormous head, a short and thick neck, and huge feet. The foot of the elephant is the largest. The rhinoceros has three toes on each foot, the hippopotamus four, and the elephant five. All three animals are difficult to kill, and all are exceedingly heavy, as we should surely know if one trod on us.

Although we expected to come across lions in the desert, we saw none during our travels in the Sahara. Few are

Antelopes are found in central and east Africa.

found in the desert except near the oases or along the edges. The true home of the lion is on the high pasture lands and other fertile parts of the country. Lions live on deer, antelope, and other game, and such game is found only where there is good pasture or woods. There are many lions in Abyssinia, in Uganda, and in different parts of central and southern Africa. They are hunted by both whites and natives, although every one is afraid of them. The natives sometimes catch lions in traps, which they bait with live goats or sheep; they also make pits with sharp stakes at the bottom, upon which the lion falls and is killed.

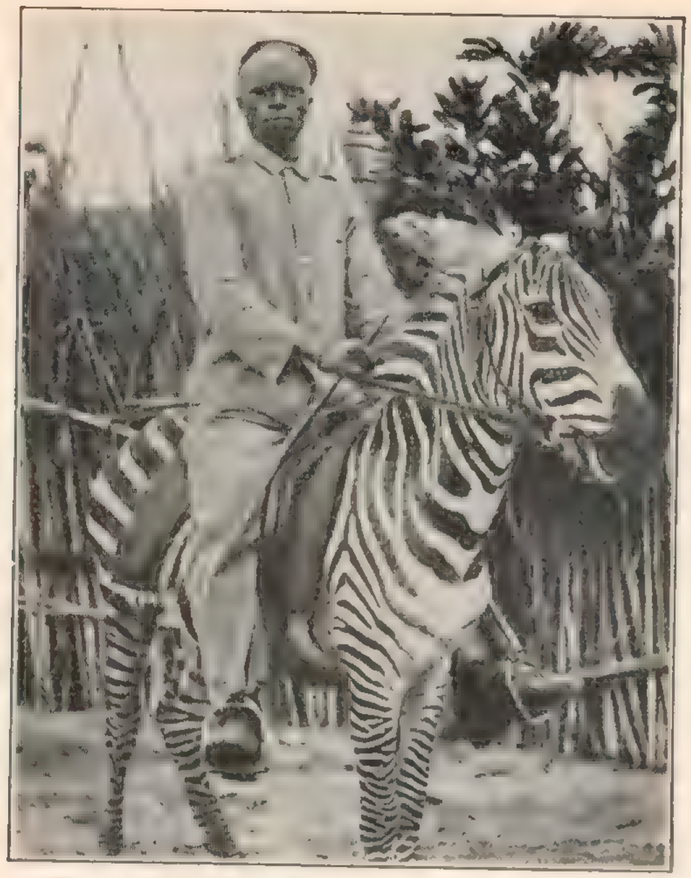
In addition to these dangerous animals, Africa has many less harmful, and some not dangerous at all. It might be called the home of the antelope and the gazelle. It has many varieties of antelopes, and some which seem to be half deer and half horse. The wildebeest has the tail and mane of a horse, and horns of an ox, while upon its chin is a shaggy tuft of beard like that of a goat. The eland and the koodoo are antelopes found in southern Africa. The

steinbok antelope, which enjoys a wide range, has a short tail, and the pah antelope is not much larger than a rabbit. Gazelles, which are small, deerlike animals with horns, are very beautiful and graceful creatures.

We have all heard of the giraffe, and find it interesting to study in its home. The largest giraffe is so tall that it could stand on the ground and look down into the chimneys of an ordinary cottage. It has a neck so long that it can easily pick the leaves of trees, which form its principal food; and its tongue is so long and strong that it can wrap it around the leaves to pull them off. Giraffes are usually of a light fawn color, with dark spots somewhat like a leopard's. They are often called camelopards, because they look like a combination of camel and leopard.

Giraffes eat the branches of tall trees.

The giraffe runs like a camel, and it can go so fast that it is not easily captured. It has hoofs, and if attacked in the woods will jump upon its enemy with its fore feet. It is found in different parts of Africa, and especially along the desert. The Arabs hunt it for its skin, out of which they make shields. They also use its sinews for thread and string.



Zebras are being tamed for use as riding animals.

In this region where we now are there are many zebras, and we often think it would be fine if we could tame these wild striped ponies and take them back to our homes. Some have been tamed by the white settlers and a few are ridden or driven. We saw great herds of zebras in the wilder part of Abyssinia, and they are also to be found in the mountains of Kenya Colony. They go galloping over the hills, their striped coats shining in the light of the tropical sun. Now and then we hear one call out to his fellows. His cry is not like the neigh of the horse, nor the bray of the donkey, but a shrill yap! yap! yap! We learn that the natives kill zebras for their meat and tan their hides for mats and leather.

In addition to the animals which we have seen, Africa has many buffaloes, wild hogs, hyenas, and other wild

beasts. Later in our travels we shall find many species of the monkey family, from great gorillas and apes to tiny animals no larger than the ones owned by the organ grinders in our cities. We shall also see many birds of brilliant plumage, and reptiles and strange insects.

1. Name the African countries along the Indian Ocean. To what European nation does each belong? By whom was Tanganyika Territory formerly owned?

2. Trace our route from Abyssinia to Nairobi. What important geographical line do we cross on the way? Through what countries of Africa does this line pass?

3. Describe our railway ride across Kenya. Why are the giraffes, antelopes, and other wild animals not afraid of the travelers?

4. Where is the capital of Kenya? Describe it. What kind of people do we see as we go through the country?

5. Locate Lake Victoria. Compare it in position and size with Lake Superior.

6. What famous river has its source in Lake Victoria? Describe Ripon Falls and their possible value for industries.

7. Tell about the clothing or lack of clothing of some of the people. How is bark cloth made? What American goods takes its place? How do our cloths sell in competition with those of England and France? Trace a bale of goods from New York to Port Florence, via Gibralter. Trace a shipment from Bombay to that port.

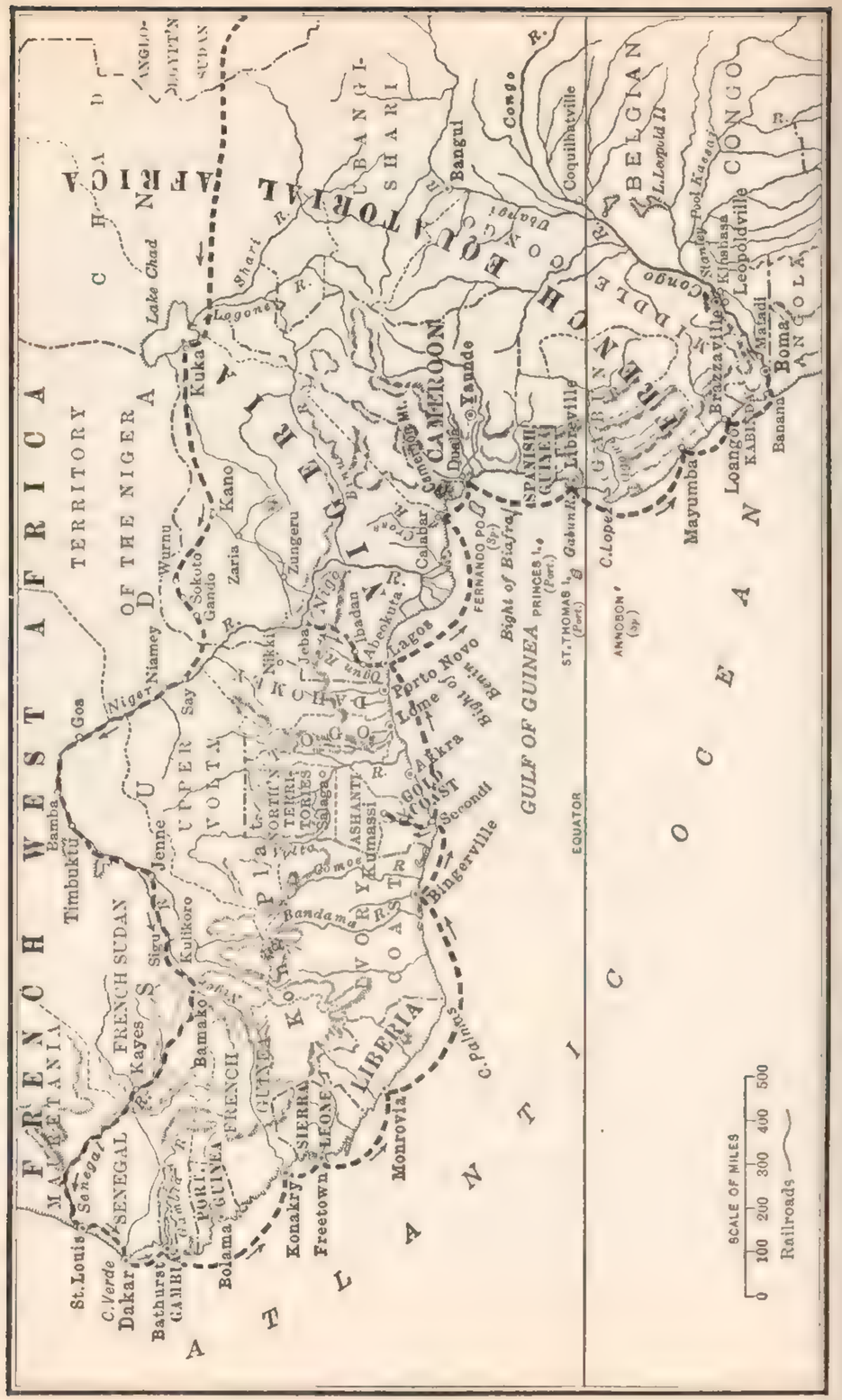
8. Bound Uganda. What great river runs through it? What great lake is at the south?

9. Describe the people and tell how they live. What industries have they?

10. Tell what you can about the wild game of the countries through which we have traveled. Where in Africa are elephants found? Describe them and their habits.

11. Tell all you can about ivory, tracing the shipment of a tusk from Mombasa to Liverpool.

12. Describe a hippopotamus; a rhinoceros. Tell all you can about the lion, the giraffe, and the zebra.



Routes of our travels through the Sudan and along the Guinea Coast.

XXIV. IN THE CENTRAL AND WESTERN SUDAN

LEAVING Uganda, we go northward along the Nile and then westward across the Anglo-Egyptian Sudan to visit some of the countries south of the Sahara. We cross the Anglo-Egyptian Sudan, and then come into the central Sudan, in which Lake Chad lies. The land farther west might be called the western Sudan. It comprises the basins of the Senegal, the Niger, and other rivers which flow into the Atlantic. These countries extend southward to the Gulf of Guinea. They belong to the French and the British, with the exception of Liberia, which is an independent republic ruled by the natives.

The Sudan is so large that we can explore only the principal parts of it. From east to west it is longer than the distance from New York to San Francisco, and from north to south its width is greater than the distance from Chicago to New Orleans. The northern part includes the semi-arid regions that border the Sahara. It has high fertile plains dotted with groves of magnificent trees. The climate is good and the people are somewhat civilized.

South of this region in the western Sudan is a dense belt of forest and jungle and along the coast are swamps of vast size. The land is cut up by hundreds of streams, and the waterways form the chief means of moving from one place to another. The country is unhealthful, fevers are common, and so many Europeans and Americans have died there that the region is called "The White Man's Grave." Nevertheless it has millions of natives, and among them some of the least civilized people of Africa. Some of the tribes are savages, some are cannibals, and some are said to have human sacrifices.

Our route to Lake Chad is over the Southern Sahara.

We are now in the home of the blacks and in what might be called the true home of the negroes. We have already seen that the negro is not the only race in Africa. The continent has four great races and many subordinate ones, made of a mixture of these. Most of the northern Africans are the descendants of the white type of race, while those of the southern Sudan and southern Africa are of the black type. The northern Africans are of many tribes which are descended from the Semitic and Hamitic races. They are like us, having similar features; and sometimes, as we saw in the Atlas Mountains, where the Kabyles live, skin almost as white as our own.

The black races are the negroes, who are found in their purest state in the southern Sudan along the Gulf of Guinea and also the Bushmen and Hottentots, who live in the southern part of the continent. These black races have somewhat similar features; woolly hair, thick lips, and

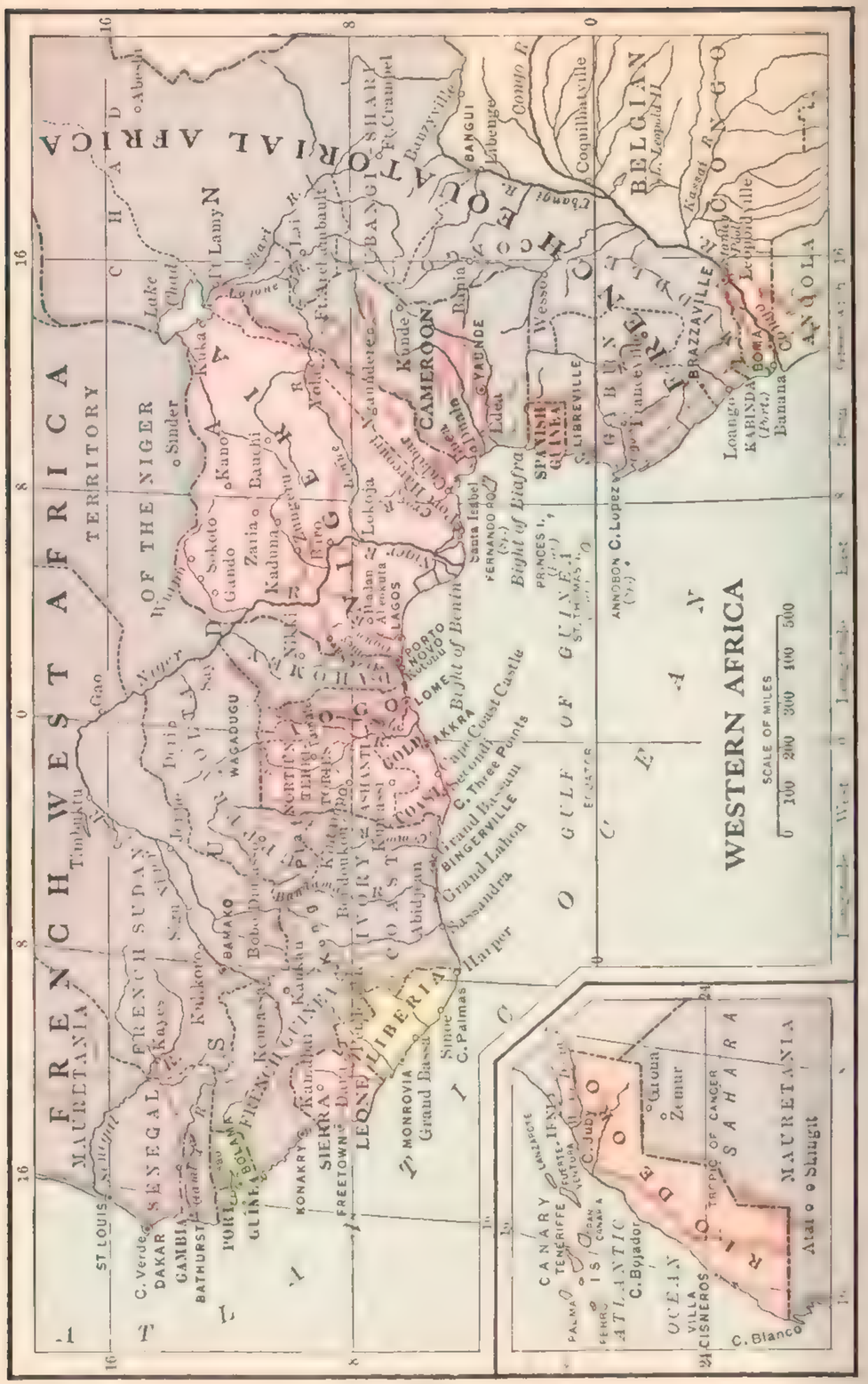
flat noses; but the Hottentots and Bushmen have lighter skin and more prominent cheekbones than the pure negroes.

In addition to these races there are many others formed by the different races mixing together. Africa has thousands of independent tribes which have always been warring upon one another. Captives taken in battle have become slaves, and slaves have been carried from country to country and sold. They have intermarried with their captors, so that in places it is almost impossible to tell where one race ends and another begins.

The people are sometimes classed according to the language they speak. There are many different languages used in the different parts of Africa. In the Congo basin and in the southern half of the continent there are tribes which speak the Bantu language, and for this reason they are referred to by the common name of Bantus.

Our first journey through this part of the Sudan will be to the high plains, where we may, perhaps, meet some of the old friends with whom we traveled in the Sahara. Caravans are always moving across the sands from the Mediterranean to these plains, carrying goods. There are a number of caravan routes, and large market towns to which the caravans come. The most important of these are Timbuktu, in the French Sudan, Kano (kä′nō), in northern Nigeria, and Kuka (kōō′kä), on Lake Chad. These places are far apart, but they are all on the highlands not far from the Sahara, and their people have been trading for many centuries with the more civilized people of the north.

The chief trade routes of the northern Sudan run east and west, on account of the dense forests which lie farther south. They are little more than paths through the country, and we shall not attempt to describe our slow marches from place to place.


FRENCH WEST AFRICA
TERRITORY OF THE NIGER
EQUATORIAL AFRICA
BELGIAN CONGO
ANGOLA
WESTERN AFRICA
SCALE OF MILES
0 100 200 300 400 500
MAURETANIA
SENEGAL
FRENCH SUDAN
PORTUGUESE GUINEA
GAMBIA
SIERRA LEONE
LIBERIA
IVORY COAST
GOLD COAST
TOGO
DAHOMEY
NIGERIA
CAMEROON
FRENCH CONGO
SPANISH GUINEA
GABUN
BANGUI
SHARI
LAMY
LAKE CHAD
KUKA
KANO
SOKOTO
ZARIA
KADUNA
ZUNGERU
BAUCHI
GANDO
SIMDER
LAGOS
ABEOKUTA
IBADAN
PORTO NOVO
BENIN
WARI
ABO
BONNY
CALABAR
OKUNI
YOLA
GARUA
MAKURDI
LOKOJA
BAUCHI
BAMAKO
KAYES
SAN
TIMBUKTU
GAO
DJENNE
SEGU
KONG
KUMASI
ASHANTI
KUMASSI
BOBO DIOULASSO
KONAKRY
FREETOWN
MONROVIA
GRAND BASSA
SINOE
HARPER
C. PALMAS
ABIDJAN
GRAND LAHOU
ASSINIE
GRAND BASSAM
BINGERVILLE
ACCRA
APAM
CAPE COAST CASTLE
SECONDI
C. THREE POINTS
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PORTO NOVO
BADAGRI
WHYDAH
GRAND POPO
AKASSA
ABEOKUTA
LAGOS
BENIN
BONNY
CALABAR
OKUNI
YOLA
GARUA
MAKURDI
LOKOJA
BAUCHI
KANO
SOKOTO
ZARIA
KADUNA
ZUNGERU
SIMDER
BAUCHI
GANDO

Goods are brought across the Sahara to Kuka on pack camels.

which make up the city. There are native soldiers moving about. Some are armed with lances, spears, and swords, and others with guns. We learn that the king of Bornu is powerful, and has many men in his army, although he is subject to England.

Bornu for ages has been noted as one of the chief kingdoms of Africa. It has a written history which can be traced back a thousand years. It was once the center of a great empire, and its people grew rich through their wars and by trading. Their wealth spoiled them, and they neglected to keep up their army, and were afterward destroyed. Since then other empires have risen and fallen, and even to-day the country is great. It has a territory about as large as the state of Illinois, and its population numbers several millions.

The people are mostly Mohammedans of the mixed negro and Berber races. They are great traders. They hunt elephants and ostriches, exchanging the feathers and ivory for European goods, which they in turn send farther south to sell. Other exports are palm kernels and oil, hides and skins, raw cotton, and tin ore. Northern Nigeria has large deposits of tin, which have been worked by the natives for centuries. The tin-bearing regions cover an area larger than the state of Massachusetts. The colony also has iron, lead, coal and silver.

Most of the natives are farmers. The country has a fertile soil. We have already passed little plantations of cotton, wheat, millet, and other grains on our way here; there are also groves of bananas and delicious fruits. The people have excellent horses, and we have no trouble hiring saddle animals for a trip through the country.

We take rides along the shores of Lake Chad, keeping well out of the way of the hippopotamuses, which are to

Along the swampy shores of Lake Chad we see many hippopotamuses lying in the water.

be seen here and there with their noses just above the surface of the water, or wading in the shallow water near the shore. Now and then we go for a ride in one of the native boats. The lake is by no means as beautiful or as large as Lake Victoria, although it is one of the large lakes of the world. It varies in size with the seasons. During the floods it becomes an enormous lagoon, almost as big as Lake Huron; while in dry times it is as small as Lake Erie and looks more like a swamp than a lake.

Leaving Kuka, we travel westward to Kano, making our way with a party of traders from one place to another. We have to go slowly, marching along in single file, for many of the roads are mere paths leading from village to village. It takes quite a little army to carry our baggage. We have bales of cloth and bushels of cowrie shells with which to pay our expenses. In the past many traders had their money in slaves, making each slave carry a load of

goods on his head and selling both slave and goods at the villages on the way. A good slave was worth one hundred and fifty thousand cowries, and slaves were long a common currency in this part of Africa. In 1917 slavery was abolished by the government, and in 1913 a special silver coinage was introduced by the British and is now used in the chief towns and cities. For small change, cowrie shells are still used in places. These shells are brought by the shipload to Africa from different parts of the Indian Ocean. Each shell is about as big as a lima bean, and its value in some places is so small that it takes forty to be worth one of our cents, and five dollars' worth would fill a bushel basket. Such an amount of shells would be a load for two men, and if all our money were carried that way, we should not have enough to pay the wages of the porters by the time we reached Kano. Therefore we use cloth, one bale of which is worth many thousand shells. We cut off a yard or so at each village, and trade it for shells with which to buy what we want.

The natives of central Africa carry bales of cotton on their heads.

We also do much trading by barter, exchanging what we have for the goods of the natives. This way of doing busi-

This woman of Kano mixes her bread out-of-doors in a wooden bowl.

ness seems peculiar. If we ask a man who has a sheep for sale what it is worth, he may reply three yards of black stuff, or six yards of white stuff, or perhaps fifty glass beads, or so many bars of salt, according to what we have to offer. Most things are exchanged in this way; and the people are so like children that a mechanical toy or a doll which cries would easily buy several parrots or monkeys. We regret we have no toys to take the place of the mass of cowrie shells we are carrying.

We move along carefully, stopping at the villages every night, and going nowhere alone after dark for fear of lions, leopards, and other wild beasts. Every now and then we see strange birds of beautiful plumage, and butterflies and moths more gorgeous than any found in our land. There are frogs in the swamps and tortoises and crocodiles in the rivers. We are told to look out for snakes, especially for the little puff adders, whose bite is death.

Among the most interesting African insects are the ants, which are to be found in almost all parts of the continent. As we travel we often pass mounds thirty to forty feet thick and from ten to fifteen feet high. Each mound is an ant-hill, the home of thousands of ants. It is a network of tunnels, galleries and chambers, arranged in stories, some of which are far below the level of the ground. It might be called an ant apartment house.

The ants have a queen who is waited upon by the workers way down in the basement of such a house. The queen lays all the eggs of the colony, and her subjects take them as they are laid and carry them off to the nurseries to hatch them. In some colonies there are soldier ants, which guard the queen; and the working ants labor under the soldiers.

Among the most destructive of these insects are the white ants. We soon learn about them; for they have gotten into our baggage and eaten our lead pencils, the corks from our bottles, and all other things made of wood. White ants will eat almost anything except iron or very hard wood. A man with a wooden leg would not want to sleep in certain parts of Africa for fear of finding his leg a heap of sawdust in the morning. These ants burrow into the wood of houses. They work in the dark, and eat inside the posts and pillars until nothing is left of them but mere shells, which finally give way and the whole house falls.

In going through the woods we are surprised to see but few dead trees upon the ground and very few branches. We pick up a stick to use as a cane and find that it breaks to pieces in our hands. The ants have eaten out the inside of the stick and have left only the shell. They have eaten the dead trees and the shells have crumbled to dust.

Such ants are bad enough, but the warrior ants are worse. They have bites which sting like red-hot needles and they are so ferocious that we can pull their bodies apart but their jaws still stick in our flesh. We are warned against the terrible driver, or soldier ant, and give him a wide berth. This ant does not weigh as much as the smallest pea, but lions, leopards, and even elephants rush to get out of its way. The driver ants move in vast numbers, in regular order, from place to place, looking like a strip of black ribbon as they cross one's path. If they meet anything living, they throw themselves upon it and bite it to death. They tear the flesh bit by bit from the bones, and in a short time reduce it to a skeleton. When they attack a hut, not only the people, but even the rats, mice and insects run out, for nothing living is willing to fight the terrible driver. If they get on us, the best thing to do will be to rush for the nearest stream and dive in. The ants do not like water, and will let go when it touches them.

XXVI. IN THE LAND OF THE HAUSAS

AMONG the most interesting peoples of Nigeria are the Hausas. There are many millions of them and for ages they have been more civilized than many of the African races. They have a tradition that their ancestors came from Arabia and we shall find most of them are Mohammedans. The first Hausas settled the country a little north of where we are now. They founded Kano, which is still their principal town. That was five hundred years before Columbus discovered America. They were stronger than the other races about and they soon conquered them, building up an empire which was at one time half as large as the continent of Europe. Later this empire was broken up into small kingdoms, and to-day we shall find many kingdoms or provinces, all of which belong to Nigeria and are under the British, although each has its own native ruler.

Tropical forests surround the native huts. Many of the trees are banana palms.

On our way from Kuka to Kano we stop now and then in a Hausa village. The people have black skin, but their lips are not so thick as those of the negroes. They are a

The Hausas are beginning to wear modern clothing. We find several American hats and jackets among them.

mixture of the Hamitic branch of the white race and the negro, and are far more intelligent and of a higher degree of civilization than the pure negroes of the coast.

The Hausas dress becomingly. Both men and women wear clothes of native cotton, dyed blue or scarlet, and sometimes embroidered in beautiful patterns. The ordinary costume is a loose gown which has wide flaps covering the arms and a pair of baggy trousers below it. There is a large pocket at the front of the gown, in which all sorts of things are carried; and as many of the Hausas are somewhat light-fingered, we have to watch them, while they call upon us, that our valuables may not find their way into one of these pockets.

These people wear enormous hats; they have boots and shoes, but seldom use them except when in town. The children go scantily clad, and babies are often naked. The little ones are carried tied to the backs of their mothers, and we frequently see women binding wheat or hoeing the garden with babies slung to their backs.

The large Hausa villages have walls about them for defense. The dwellings are odd, most of them being built almost entirely of mud. We know why when we remember that the white ant will eat any timber which is put into a building. Very few of the houses are more than one story high. There is little furniture. A bedstead made of reeds about a foot and a half high serves as a seat during the day and as a sleeping place at night. In some cases the bedstead is of mud, with a hollow place under it in which a fire can be lighted. Such bedsteads are not strong, and, although we like the warmth, we should fear that the bed might give way and drop us into the fire.

We find the Hausas polite. They make us at home in their villages and often send a guide with us to the next town. The man usually carries a drum, to give the people the news of our coming. The drum serves as the telegraph instrument of this part of the world. When villages are close together, messages can be sent from one town to another by tapping on the drum in a certain way; and our drummers are thus able to let the people know who we are and how to receive us long before we get there ourselves.

As we near Kano we meet many Hausa soldiers and, now and then, a long-gowned priest in a turban. We see the Mohammedan people praying with their faces toward the east, and learn that they even make pilgrimages to Mecca. Among the most bigoted of the Mohammedans are those of the race known as Fulahs, who are taller and have lighter skins than the Hausas themselves. They scowl at us as we pass by, for they do not like Christians.

Some of the Fulahs are thought to be so holy that they can write charms which will prevent disease, make one rich, or cause his sweetheart to love him. The charm is first written in ink on a flat piece of wood. It is then scoured off,

and the wash water is drunk by the person who wants to benefit by the charm. They are also skilled in making poisons; and we are warned we must be careful what we eat as we go through the country.

The Hausas have excellent food. They are good farmers. We pass fields of guinea corn, maize, wheat, and rice. They raise quantities of millet and also peas, beans, sweet potatoes, and onions. They have bananas, oranges, mangoes, and other fruits. Many of them have large herds and flocks, and so many bees that their country is really a land of milk and honey. They fry sweet potatoes in palm oil and roast yams over the fire. They make cakes of flour mixed with red pepper, and a porridge of guinea corn so seasoned with pepper that it almost burns one's mouth. We have plenty of chickens and ducks and occasionally beef, mutton, or goat's flesh. The Hausas eat the locusts which now and then come in swarms over the country, darkening the face of the sky. They catch them with nets and roast them.

We spend several days in Kano. It is, perhaps, the largest city in central Africa. It has about a hundred thousand people and is surrounded by walls forty feet thick and fifteen miles in circumference. The land for miles about is well cultivated, and there are many little gardens inside the walls. The city is connected by railway with the Gulf of Guinea. It has thirteen gates and also a water gate to let out the floods. Much of Kano is low and swampy, and a sheet of water near the center divides the city into two parts. On one side of the water the richer Hausas and most of the Arabs live, and on the other side are the poorer people. Kano is made up of a variety of low buildings; the houses are of mud, and many are surrounded by walls. One wall often incloses several houses.

Some parts of the town are given up to manufactures,

the people doing the work at their homes. Here they are weaving cloth in long narrow strips; here they are sewing saddles and leather goods; and there making great hats of straw; while farther on a blacksmith is pounding out a spear or a sword.

An interesting place in the city is the market, which lies close to the lake. It is said to be the largest market in Africa, and it is estimated that there are often thirty thousand people buying and selling here at one time. There has been a market on the spot for many centuries, and a thousand years ago the people were making goods in this town.

Among the musical instruments used by the natives is one somewhat like a harp.

The crowd in the market is from all the regions about. There are half-naked, black-skinned men with negro features, fair-skinned warriors from the desert with veils over their faces, and long-gowned Arabs in turbans. The market stalls are rude sheds of leaves and mud, or mere mats or cloths hung up to shield the sellers and buyers from the rays of the sun. At other places the dealers have spread their stuff on the ground and are selling out in the open.

Every kind of goods has its own quarter. Here they are peddling fuel. The wood, which is tied up in bundles, has been brought in from the country on the heads of slaves. Over there nothing but cloth is sold. Those goods of bright colors were made by the Hausas. Other cloths, from the

United States and Europe, came from the Gulf of Guinea by river or rail, or across the Sahara by camel trains that were many weeks on the way.

We stroll through the leather market, pricing the strange-looking shoes and slippers and the boots of red and yellow leather turned up at the toes. There are leather pillows and soft leather cases for books. Most of the Hausa books are unbound, and these cases are somewhat like satchels. We go to the pottery stores, where clay cooking utensils are sold; and then to the iron mongers to buy a spear, a sword, and other trinkets. We stop at the sweetmeat stands to taste a mixture of honey and nuts fried in oil, and then go on to a stall where the merchants are selling sugar and salt to the children. We find that they charge as much for the salt as the sugar, and that the children seem quite as glad to eat one as the other.

The grain and vegetable markets are interesting. We see millet, rice, barley, and different kinds of corn; there are also pumpkins, peanuts, onions, yams, and sweet potatoes, fresh and sour milk, butter, and cheese.

We hear a great squawking, baaing and braying, and pass on to the section devoted to the fowls, goats, sheep, cattle, horses, and donkeys. We can buy a good riding pony for about five hundred thousand cowries; and a fine saddle is worth more than its weight in these shells.

Among other strange things in the market are kola nuts, used as a stimulant and for medicine; and antimony, with which the women dye their eyelids to make themselves more beautiful. We spend some time going from section to section watching market chiefs collect the taxes of the merchants according to the places they have and the amount of their sales. Everything is carefully ordered, and we feel quite as safe as in our markets at home.

1. Tell what you can about the central and western Sudan. Compare it with the Anglo-Egyptian Sudan.
2. How do we travel from Uganda to Nigeria? At what great lake do we stop on the way? Compare it with one of our American lakes.
3. Take a trip through northern Nigeria. What animals are to be seen in that country? What insects? Describe the white ants; the warrior ants.
4. Make a visit to Kano and tell what you see. How is the town reached by railway? Trace a shipment of palm-nuts from Kano to London.
5. Who are the Hausas? Describe their villages. What is their religion? Where have we met other nations of this religion?
6. What goods do we see in the markets of Kano? Tell what you can about the methods of trading; the money sometimes used by the people.

XXVII. THE FRENCH SUDAN—TIMBUKTU AND JENNE

WE are traveling this morning in the French Sudan. The colony lies between the Sahara and the countries along the Gulf of Guinea, including a part of the basins of the Senegal and the Niger rivers. It is about ten times as large as New England and has a population of several millions. It has many hundred miles of railway, and the French are putting telegraph lines through the principal centers.

We are now on the Niger River. We reached that great stream from Kano, making our way through Wurnu, Sokoto, and Gando, smaller cities governed by the Fulahs. The Niger is one of the large rivers of the world, being surpassed in Africa only by the Nile and the Congo. It has a basin almost one third as large as the United States. The river rises on the western side of the Kong plateau,

not far from the sea, and flows across the Sudan in a northeasterly direction, to the Sahara. It skirts the desert for some distance, then turns to the southeast, and after a long, winding course loses itself in the Gulf of Guinea in southern Nigeria. Its one great tributary, the Binue (bē′nōō-ā), the mother of waters, rises near Lake Chad and, flowing through a region populated by millions, empties into the Niger several hundred miles from its mouth.

The Niger, like the Nile, has its high and low waters, and also carries quantities of fertilizing material. During the floods the river spreads far out over the country, and in those regions where it flows near the desert there are great areas of irrigated farms, such as we saw in the valley of the Nile. The vegetation is similar; we shall see mules, donkeys, and camels feeding in the fields, and palm trees waving their long, feathery branches over flat-roofed mud villages.

Farther downstream, where we now are, much of the river is walled with forests. We travel long distances without seeing anything but alligators upon the banks, monkeys in the trees, and, now and then, a black hippopotamus swimming with its pink nose just out of the water.

At one place we meet some English hunters who have killed a hippopotamus. The great beast lies upon its side in the marshes, on the banks of the river, with a score of native boatmen standing about. Its mouth is wide open and we can see the great teeth, which will be saved for ivory.

As we go onward the country grows more open. We pass through plains upon which are feeding cattle, goats, and sheep which have long hair instead of wool. The flocks are watched by shepherds, and we frequently see natives on the bank. The men are armed, and brandish their weapons as we go by. Sometimes they are good natured and beckon us to land. There are women washing their

clothes on the edges of the stream, and little half-naked children playing on the shore. Now and then a ferry boat goes from one bank to the other with a cargo of animals and people, and we often pass other boats belonging to traders, who are carrying their various wares up or down the river.

Parts of our way are through rapids, where we have to be pulled or pushed with poles; in other places the water is low, and great beds of tall grasses impede navigation.

Our journey is slow, but every day brings new pictures and new things. We see strange tribes and strange animals, we now get a shot at a monkey and now at one of the wonderful birds which inhabit the forests of Africa. There are kingfishers as blue as the sky, black crows with white breasts, and great flocks of guinea fowls and pelicans, which, as our boat nears them, rise in awkward flight from the river where they are fishing.

The trees are as wonderful as the birds. There are some that yield gutta-percha, others palm nuts and palm oil, and some from which come flour, cheese, and butter. We have seen palm trees with a sap which turns into wine, and have heard of trees which yield chocolate, sugar, and bread fruit.

The karita, or butter tree, grows very large and has a bark and trunk similar to our chestnut tree, and leaves somewhat like those of the pear tree. There is so much oil in the nuts, that when they are boiled in water the oil rises and can be skimmed off. As it cools it hardens and is molded into blocks which look more like tallow than butter. The natives use this butter in many parts of the Sudan. The oily nuts are each inclosed in a flesh which tastes much like a peach. It is so sweet that the people make candy of it.

In the French Sudan we often see the skeletons of camels that have died on the long journey across the desert.

The nata, or flour tree, has large pods containing flour of a yellow color, somewhat sweet to the taste; and the cheese tree, which the natives call the baga, produces a fruit which tastes like cheese, and has a fiber nearly as fine as silk.

We ride over the sands to Timbuktu, passing now and then the skeleton of a camel or horse which has fallen and died on the way. The town looks quite imposing in the distance. It grows less so as we approach it, and when we pass through its half-ruined walls we find only a mass of rude one and two-story houses, many of which are falling to pieces. The doors of some of the buildings are gone, the flat roofs have caved in, and there are huts of mud and straw in the middle of the town.

Timbuktu was once one of the great cities of Africa, but it has declined and now contains only a few thousand people. We shall find a more important place in Jenne (jĕn′nĕ), farther up the Niger.

Jenne and Timbuktu might be called parts of the same business city, although it takes several weeks to go by boat from one to the other. Many of the rich merchants who do business in Timbuktu have their homes and business places in Jenne, but also keep warehouses and stores at Timbuktu because of its situation on the edge of the Sahara, not far from the Niger. It is this location that has made Timbuktu an important place. It is the end of five great caravan routes which cross the desert from Morocco, Algeria, and other places north of the Sahara; so that goods from all of these regions and from the oases are landed at Timbuktu, and thence taken on the Niger to different parts of its mighty basin. At the same time gold dust, ivory, gum, and

We meet many Moors on the streets of Timbuktu. This man has come from Morocco.

the other products of the Sudan are brought to Timbuktu to be sent across the desert; the town has also a connection through the Niger and Senegal rivers and the railroad with the port of St. Louis (săn lo͞o-ē′) on the Atlantic coast so that goods for and from the other continents are shipped out and in by that way.

In the past, when almost the whole trade was by caravan, Timbuktu was far more important. At about the time of the discovery of America it was the capital of the Songhay (sôn-gī′) empire, which was so large that it is said it took travelers six months to cross it. This empire lasted about one hundred years and was finally overthrown by the armies of Morocco.

The Songhay were a mixture of the white and black races; and their descendants have black or brown faces and long, kinky hair. There are now many Fulahs among them.

The people of Timbuktu remind us of those we saw during our travels along the Mediterranean. There are Moors in burnooses, Arabs in turbans and gowns, Tuaregs in veils, dark-faced Jews, and negroes of every description. There are women and girls, with faces unveiled, wearing long gowns which reach from their necks to their feet, and children dressed much like those we saw in the valley of the Nile. These people are Mohammedans. There are many sheiks and priests, and we hear the latter call the hours of prayer from the mosques.

Everyone is polite, and we have little trouble in seeing what we want if we are polite in return. We visit the warehouses packed full of dates, salt blocks, ivory tusks, and bales of ostrich feathers. There are also European goods of many kinds, especially cotton, hardware, and arms.

We watch the loading of the camels which are to start across the Sahara. Many of them are only half loaded when

they start out. We ask why this is, and are told that the rest of the burdens will be made up at the salt mines on the way, in the midst of the Sahara. Some of the salt is brought to Timbuktu, and shipped from here to all parts of the Niger basin. We have seen it sold in the village markets, where the blocks, broken into pieces, always command a good price.

It takes us more than two weeks to go from Timbuktu to Jenne. The river flows close to the desert most of the way, and on both sides of it are irrigated farms. Jenne stands on an island surrounded by branches of the Niger, its people owning most of the lands for miles about. It is better built than any other town we have seen since we left Egypt. Its streets are wide and its houses are of brick of one and two stories, so plastered within and without that a house looks as though it were cut from one block of stone. Most of the buildings have flat roofs; some have clay pipes extending out over the street, to carry off the water when it rains.

Jenne is a busy city. It has large mosques, warehouses, and stores. There are crowds at the wharves loading and unloading boats. Donkeys, with packs on their backs, go in long files through the streets. There are many men carrying burdens, and at certain times of the day the business sections are crowded.

We spend some hours in the market, an open place in about the center of the town, with shops on three sides of it and a mosque on the fourth. Here are hundreds of people buying and selling. Women and men sit on the ground with their wares spread around them. Money changers, with piles of cowrie shells before them, stand ready to exchange them for gold and silver. Here are two boys peddling sweetmeats and cakes. A butcher stands in front of his shop, with joints of meat hung from its roof and live sheep behind

ready to be killed and cut up, according to the demand, into roasts and chops. Near the butcher shops are little ovens, upon which one may roast his meat free of charge, if he buys his wood from that fuel seller next door.

We spend some time in the cloth stores, purchase some perfumery at one of the scent shops, and stop awhile to look at the barbers shaving the heads of their customers out in the street. Later on we go to the great mosque, where the worshippers are praying, and on the same day we see a Mohammedan school. The children squat around their teacher out in the street and write sentences from the Koran, singing them again and again to commit them to memory. These people are famous among the central Africans for their learning. They are celebrated also as traders, and their boats, loaded with goods, carry much of the commerce of this part of the world.

From Jenne we travel some distance farther up the Niger by boat. We then cross the country by caravan to the little railroad built by the French. This takes us to Kayes on the Senegal River, where we get steamers for the port of St. Louis, the capital of the French colony of Senegal, on the Atlantic Ocean.

XXVIII. THE SPANISH POSSESSIONS

WE might get a ship at St. Louis and travel northward to visit the territory which Spain owns on the west coast. The trip, however, would be much out of our way, and as the country is about the same as some through which we have traveled, we shall not take the time.

The Spanish possessions begin in the neighborhood of Cape Blanco (bläŋ′kō) and extend several hundred miles

northward to Morocco and eastward far into the Sahara. They also include the small strip in northern Morocco which we have already visited and a province or so on the Gulf of Guinea. The Spanish territory altogether is equal to about three states as big as Ohio, but the southern part of it is a sandy waste. It is therefore thinly populated, and most of its inhabitants are like the people we saw during our travels in the Sahara.

Most of Spanish Africa is ruled by the governor of the Canary Islands, with a subgovernor at the town of Rio de Oro (rē′ō dā ō ′rō) on the coast.

In addition to this territory, Spain has the island of Fernando Po (fĕr-nän ′dō pō) and several other little islands in the Gulf of Guinea. Both the islands and the coastal territories are unhealthful. The swampy land is covered with a luxuriant vegetation and contains vast forests, from which are gathered India rubber and palm oil. Its only foreigners are some Spanish, French, and English merchants. The natives are negroes of a low type, quite similar to those of Cameroon and French Equatorial Africa, whom we shall see farther on in our travels. These Spanish possessions have few harbors, and the rivers are generally unnavigable.

1. Locate the Niger River. Compare it in size with the Mississippi; with the Congo; with the Nile. What is its chief tributary?
2. Describe our trip to Timbuktu. In what desert is it? Why is it a trading center? From where do many of the goods come? How are they carried?
3. Where is Jenne? Visit the town and tell what you see. What is the chief religion of the people whom we have seen in this part of our travels? From what desert country in Asia did the founders of this religion come?
4. Describe the Spanish possessions in Africa.

XXIX. FRENCH WEST AFRICA

ST. LOUIS, where we are now, is the capital of the French colony of Senegal. A railroad runs from here to Dakar on Cape Verde, a French naval station which is the seat of the governor-general of French West Africa. We have already visited the rich dependencies of France in the northwestern part of the continent, including Morocco, Algeria, Tunis, and a large part of the Sahara. We passed through the French Somali Coast on our way from Abyssinia to Aden, and for a time our travels will be in the other African territories belonging to France. With the exception of the republic of Liberia, the little colonies of Gambia, Sierra Leone, and the Gold Coast belonging to Great Britain, and Portuguese Guinea, all the country from here to Nigeria is governed by the French. Togo, which was formerly German, at the close of the World War was divided between the French and the British, but the colonies of Senegal, French Guinea, the Ivory Coast, Dahomey, and some important lands of the interior are French possessions.

These colonies look small on the map but are really large countries. Senegal is twice as large as the state of Indiana, French Guinea is twice the size of Pennsylvania, and the Ivory Coast is twice the size of New England. The colony of Dahomey has a population of almost a million, and the French Sudan is equal to about ten states the size of Georgia and its population is two and a half millions.

All of these countries have very rich soil and some of them have deposits of gold, copper, and other metals. In some the French have built railways, are establishing schools and post offices, and are trying to improve the condition of the people. Altogether enough railways have been constructed in this part of Africa to reach from New York

Many of the tribes of West Africa wear masks at their ceremonials. This one is carved from ivory.

far beyond the Mississippi River, and the telegraph lines would go half way around the world.

We leave St. Louis for Dakar (dä-kär′). There we have a talk with the Governor-General of French West Africa, and spend a few days learning about the country and the people. Dakar has a population of about twenty-eight thousand, of whom three thousand are Europeans. The city has well-paved streets and electric lights. The stores have all kinds of foreign goods and we are able to lay in new supplies after our long tour through the wilds. Dakar is one of the chief ports of West Africa and the principal coaling station. Its harbor is large enough for fifty ocean steamers and there are French vessels at the quays. The trade is confined chiefly to France and Europe, and few American goods are found in the stores.

French Guinea, which is some distance south of Senegal, is a rich colony. It exports not only cattle, peanuts, gum, hides, and rubber, but also palm nuts and palm oil. The chief port is Konakry, from where a railroad goes to the Niger River, a distance about as great as from Philadelphia to Pittsburgh. French Guinea is a fine cattle country having several hundred thousand sheep and goats and

Behanzin, the last king of Dahomey, with three of his wives. The king had Amazon soldiers.

thousands of horses. Here the French are opening up roads and are improving the port.

Going on to the south the next colony is the Ivory Coast, one of the great centers of the slave trade in the past. The Ivory Coast has a million and a half people, almost all of whom are negroes. It is a famous rubber country and it also has gold and mahogany. A railway is being constructed from the coast into the interior and there are now several thousand miles of telegraph lines.

Dahomey is famous as the land of the Amazons. The people are negroes of the same race as those brought to America as slaves. The country was formerly governed by a king whose army was made up of young women who had been trained to fight from their childhood. They were armed with swords, battle axes, and guns and were celebrated for their bravery. For a long time they were able to defend themselves from outsiders, but the French finally conquered them, making the king prisoner and sending him to an island in the West Indies.

Dahomey, now a part of French West Africa, is thriving under the rule of the French. Schools have been established, and there are many farms growing corn, potatoes, and cotton. The French are building railroads and have already put up many hundred miles of telegraph lines.

XXX. THE REPUBLIC OF LIBERIA—ALONG THE GULF OF GUINEA

WE find a steamer at Dakar, which takes us southward along the coast. After calling at the various ports on the way, we come to Monrovia, the capital of Liberia.

A port on a West African river. Steamboats carry goods to the river towns.

We are now in a port of Africa that is of great interest to the United States.

Liberia is a republic which was founded by citizens of the United States. More than a hundred years ago the National Colonization Society of America was formed to find a place in Africa where the freed slaves of the United States could go. A tract was picked out in West Africa, and in 1847 the colony was made an independent republic called Liberia, and the people began to govern themselves. They have had various ups and downs since then, but have long been established as an independent government. Their constitution is modeled upon that of the United States, with a president, a vice-president, and a congress consisting of a senate and house. Their capital, Monrovia, was named after our President Monroe, and their laws are much the same as those of our Union. The people, who are all negroes, are about the only negroes in Africa who govern themselves.

We must not suppose, however, that this is true of all the people of Liberia. The whole country, which is about as large as the state of Kentucky, has almost two million inhabitants, and so far only about fifty thousand of them have adopted the customs of our civilization. The civilized people live along the coast, in Monrovia and in other ports. Perhaps one-fourth of them are American Liberians. These civilized people speak the English language, and believe in the Christian religion. The remainder of the population are Mohammedans or heathens, many of the latter believing in witchcraft and spirit worship. The American Liberians are all Protestants, and they have mission schools and a Methodist college.

Landing at Monrovia, it is hard for us to realize that we are not in one of the small towns of our own South. The American flag floats over some of the buildings, and the colored

officials dress in clothing like ours. There are many comfortable homes, and in the stores we find American goods. The city is small. Monrovia has only six or seven thousand inhabitants. It has two wireless stations, and a cable over which we can send messages to our homes by way of New York.

Liberia is exceedingly rich in natural resources but there are few farms of any size, and coffee, cacao, and cotton are produced in small quantities only. The land has been developed for only a few miles back from the coast. Although the country is supposed to be rich in minerals, mining operations have barely begun. The chief exports are palm oil and nuts, rubber, and ivory. There are no railroads, and only one short motor road, twenty or thirty miles long. Transportation is chiefly by means of oxcarts or on the rivers, which are navigable for short distances. Outside the coastal strip the people are almost all savages.

We go to the senate and the house and call upon the president, and then take ship for the lands farther south along the Gulf of Guinea.

Part of our sailors are Krumen. Most of them come from Liberia. They are famous as seamen and are to be found on all the ships along the western coast. They manage many of the boats at the ports, and may be seen everywhere loading and unloading vessels. They are fine-looking black men, strong and muscular. Every Kruman has a broad blue streak extending from his forehead to the end of his nose. We are told this is a tribal mark put there by his mother in infancy, and that it is intended as a pledge that its owner will die before he will submit to slavery. Very few of the Krumen ever become slaves. They are industrious and thrifty. Some of them speak English, and we enjoy talking to them on the steamer.

XXXI. ON THE GULF OF GUINEA—A WEST AFRICAN FACTORY

AFTER leaving Monrovia, we steam for some miles along the Liberian coast before we reach the large colony belonging to the French, known as the Ivory Coast. This is on the Gulf of Guinea, a vast body of water on which we shall be traveling for weeks to come. The country is intensely tropical. Much of the coast land is low and swampy, and a great part of it is covered with jungle. The people are all blacks, and as we go onward we shall call at many ports from which in times past the slave traders took the negroes to America. We spend a day at Bingerville, the capital of the Ivory Coast Colony, near which are harbors, and from where a railway runs about two hundred miles into the interior.

Our next stop is at Secondi, one of the ports of the British colony known as the Gold Coast, to which Ashanti belongs. There is a railway running from Secondi north to Kumassi, (kŏŏ-mäs′ĭ) the chief city of Ashanti. Our steamer stops a few days at the port to take on rubber, palm nuts, and other products, and we have time for a short trip to Kumassi. We take interpreters with us, and learn much about the country and the people.

Some distance back from the coast of the Gulf of Guinea the land rises, and there are many hills and valleys and great plains. Our train passes through vast forests bound together with vines, and now and then the jungle of bamboos and fern trees is so thick on either side, that we should need axes to make our way through on foot. Bananas, pineapples, and other tropical fruits are for sale at the stations. The forests are full of birds of brilliant plumage, and we see monkeys from the car windows.

Kumassi is a most interesting city. It is built on a rock surrounded by swamps, and its streets are well laid out. The town is enclosed in mud walls, and the streets have been worn into ruts by the bare feet of the negroes who form the population. We visit the market place, where hundreds are buying and selling, making a great noise as they haggle over the prices. They are mostly women and girls, some quite well clad and others having only a cloth about their bodies, which is fastened tightly under the arms and falling to the feet. Some have babies astride the hip, others carry them slung to their backs.

The chief wares are fruits, yams, meat, fowl, and bright cotton cloths. Some women are selling fuel, medicine, and hardware. Others have pipes and tobacco for sale. Here is a girl with musical instruments, and there an old woman who has a lot of quacking ducks for sale. In other places they are selling jewelry of ivory and gold, bright-colored native cloths, and tools and swords of iron or steel. Here and there through the markets are guards blowing trumpets, warning the people to keep order, and making more noise than all the rest.

There are many Ashanti tribes, some of which are almost savage. In the past the king cut off the heads of his subjects at will, and in Kumassi one might often see a score of human heads hung on poles. Stealing was punished by death, and when the king died a large number of his wives and slaves were killed in order that he might have servants in the next world.

On our way back to Secondi we see flocks of gray parrots and other curious birds. There are many trees which seem to have coffee bags hanging from their branches. We soon discover they are not bags at all, but the nests of the golden oriole, a beautiful bird that lays its eggs in the lower end of

the nest, entering it by a hole so placed that only something which flies can get into it. This is to keep the monkeys, which infest the trees of this region, from stealing the eggs.

From now on about all the people we meet are negroes. This is so in Togo, Dahomey, and Nigeria, as well as in the great countries that extend from there south to the valley of the Congo. The lands along the Guinea Coast have many small farms where the natives grow corn, yams, potatoes, and manioc. Nearly every village has its chickens and sheep and goats and pigs. Among the exports are rubber from the trees and vines of the forests, and also palm oil, nuts, and dye woods. Near some of the towns are coconut groves and coffee and cotton plantations. Attempts have been made to improve the conditions of the people, but all are very backward and less civilized than those we have already met.

At each of the ports where we call are stores kept by foreigners who sell goods to the natives and export oil, palm nuts, rubber, and the other products of the country to Europe. These stores are called factories. They import cottons, food stuffs, tobacco, kerosene oil, and the other things desired by the negroes, and exchange them for the native products brought in on boats and by porters from all parts of the country.

The ordinary factory is a large wooden building with a roof of galvanized iron. It has several rooms, including a store, a cooper shop, and often large caldrons for boiling palm oil. In one part of the warehouse may be seen bales of cotton goods, boxes of tobacco, bags of salt, packages of hardware, coils of wire, and beads to be sold to the natives; and perhaps in the same room ivory tusks, dyewood, gum, palm nuts, and other similar things which have been taken in exchange.

The "factories," or stores, along the Gulf of Guinea, handle most of the trade of the country.

Among the chief exports of this part of Africa are palm oil and the kernels of palm nuts. These products come from the oil palm, which thrives everywhere along the Gulf of Guinea, and which is so numerous that thousands of natives are engaged in gathering the nuts and making the oil.

The oil palm has no leaves except at the top of the tree, where the fruit grows in great bunches or cones at the base of the leaves. Some of the cones will weigh as much as seventeen pounds each, and a single cone may contain as many as seven hundred nuts, each as large as a horse chestnut and about the same color.

The negro climbs the tree with the help of a long hoop of rattan. He fastens this around the tree, then steps inside the hoop and raises it so that one curve rests against the tree above him and the other upon his back. He now puts his bare feet on the trunk, and by a succession of jerks walks right up to the top. He then cuts off the cones and throws them to the ground.

They are left there for a few days, and the nuts shrink and drop out. They are now boiled in water to remove the outside shell, which is lined with a fiber saturated with oil. The fiber is crushed from the kernels of the nuts in large mortars, and is then placed in clay vats filled with water. The native women get into the vats and tramp the fiber to press out the oil. It rises to the surface and is skimmed off. After this the fiber and shells are again boiled and the oil is skimmed from the surface. It is a dirty yellow color, but it is so valuable for making soap, axle grease, and other things that it is exported to Europe by the thousands of tons. The oil is used also for cooking and as a salad dressing. The natives use palm oil for lighting and cooking and for greasing their hair and skins.

The kernels of the nuts are valuable for the same purpose.

The chief town of Togo is made up of two-story white buildings shaded by palm trees.

They are dried and thus sent to Europe, where they are ground up and the oil pressed out of them.

The oil palm has other virtues in addition to those already described. Its leaves are used to thatch the huts, and from their fiber mats, hats, and other things are made. At the root of the leaves there is a heart called the palm cabbage, which is eaten as a vegetable. When boiled it tastes like parsnips, and its neck is said to have the flavor of the finest asparagus. The natives tap this cabbage when it is on the tree and fasten a gourd to it. A sap, which looks somewhat like ginger beer, thereupon flows out into the gourd. It ferments and in a short time turns to wine.

Another remarkable tree found here and in many other parts of the African continent is the baobab or monkey-bread tree. The baobab is one of the largest of trees. It is not so tall as some others, but grows to a thickness of from twenty to thirty feet, and is sometimes as much as one hundred feet in circumference. It has enormous branches, often as thick as the trunk of a great oak, and its blossoms are balls of pure white, four or five inches across. The fruit of the baobab is a gourd fourteen or fifteen inches long, with a stem two or three feet long. The flesh inside is red with a yellowish tint. It has seeds imbedded in it. The natives pound up the seeds into meal, and use the shells to carry water or to bale out canoes and to hold salt and other things.

The young leaves of the baobab are eaten as a vegetable. They are a bright green and somewhat like the leaves of a horse chestnut. The wood is peculiar. It is not good for lumber, as it is composed of fibers separated by layers of pith. The inner bark has many fibers; it is often stripped off and made into paper. It can be twisted into strings and ropes, and the natives sometimes pull out the fibers

and make bags and nets of them. The inside of the baobab tree often rots, so that the tree becomes hollow. In this case it is sometimes used as a barrel, and is filled with water during the wet season or at the time of a storm. The water is then drawn off when needed after the rains have passed.

1. From the political map name all the colonies belonging to France in western Africa; all the colonies belonging to Great Britain; to Belgium; to Portugal.

2. Where is the Gulf of Guinea? What countries border upon it? How is each governed? Which is an independent republic? By whom was it founded and why?

3. Where in Africa is the true home of the negro? How and when were the first slaves sent from there to the United States? When did we abolish slavery? What proportion of our population is colored?

4. Describe some of the natives of the Guinea Coast, telling about their strange beliefs. Visit the towns mentioned in the book and tell what you see. Who were the Amazons?

5. Mention some of the products of this region. Why do you suppose one colony is called the Gold Coast and another the Ivory Coast? What important palm tree furnishes much of the exports? Describe it and its value. For what are the nuts used?

6. Tell the difference between a factory on the coast of West Africa and a factory as the word is used in our country.

XXXII. SOUTHERN NIGERIA—LAGOS—THE YORUBANS

OUR coastal steamer has stopped at an island in a harbor in which a half dozen other great ships are lying. The wharves are crowded with negroes putting on and taking off goods. We are now in Lagos, one of the largest and most progressive towns of West Africa. It is the capital of the British province of Nigeria, the northern part of which we

saw on our way from Lake Chad to the Niger. The British have made many public improvements here, and they are gradually opening up the whole country to commerce and trade. They have built a railway from here northward to the Niger and beyond the river. Passing through the towns of Zungeru and Zaria, the road extends to Kano, thus reaching from the Gulf of Guinea almost to the Sahara.

Taking the railway at Iddo Wharf, we go for a trip into the interior. The cars are good and our ride is quite comfortable. On the train are a dining-car, bathrooms, and sleeping arrangements. We have electric lights, and electric fans which cool the hot air of the tropics.

Our first trip is across the swampy lagoon that lies between Lagos Island and the mainland. From there we shoot into the jungle, going up the valley of the Ogun River on our way to the native towns of Abeokuta and Ibadan.

Much of this vast region is a network of streams. We wind our way over the waterways, passing through a dense jungle of vivid green. In some of the streams are crocodiles, and monkeys are everywhere. The trees, bushes, and vines are tangled and twisted together, making a mass of vegetation so thick that we can see only a few feet from the train. This mass is as high as a two story house, and there are tall palms and tree ferns towering above it. Here and there we see a tunnel where the negroes have made a track from one hidden town to another, and in places settlements have been cut out of the woods.

A little farther on the land is higher. The jungle opens and we see bananas and pawpaws and forests of coconut and date palms. Now and then we pass patches of sugar cane, corn, cotton, or millet growing near the native villages of straw huts.

The natives sit inside the circle of huts that forms their village, and smoke and chat.

We are interested in the villages. They are mostly mud huts, with roofs of palm leaves or thatch. Each hut has a mud wall about it, and near every village are small farms or gardens, where the half-naked black women are working the crops. We see little fields of Indian corn and of sweet potatoes and yams. Many peanuts are grown. Here and there is a patch of sugar cane or tobacco. Some of the natives have fruit trees, and delicious oranges and pineapples are brought to the stations. We reach out of the car windows and for a few cents buy all we can eat.

Every village has ducks, chickens, and pigeons, and flocks of guinea fowls. In the open country we see sheep covered with hair instead of wool. Some of them are so gentle that

they trot along like dogs at the heels of the children as they go through the pastures. Our guide says that each sheep has its own name. He tells us it knows the voice of its owner and will come when it is called.

We stop off to visit Abeokuta (ä-bĭ-ō-kōō′tä), the chief city of the Yorubans, one of the largest and most civilized tribes of southern Nigeria. By doing so, we are able to get a good idea of the country and people of this part of Africa.

Abeokuta extends for several miles along the banks of the Ogun River. It has a mud wall around it, and in its center an enormous rock from which the town gets its name, Abeokuta meaning "under the rock."

The town is unlike any we have seen. It has no fixed streets, but is divided into numerous yards or enclosures with narrow lanes leading through them. Each yard has a mud wall surrounding it, against which the houses are so built that the wall forms the back of each room. The roofs are of thatch, beginning at the wall and extending over the rooms. They are ridge-shaped and so long that they cover a sort of veranda or porch along the front of each house. The people live on the porches as well as inside, while sheep, goats, chickens, and pigs are kept in the yards. Nearly every inclosure has a little pigeon cote, and also posts to which the horses are tied.

Some of the richer Yorubans have large establishments, with many rooms for their numerous wives and slaves. Several families may live in one yard, and some have so many dwellings divided up by courts that a stranger might get lost if the bale or ruler of that yard did not show him about.

The Yorubans are even stranger than their houses. They belong to a race numbering about four millions, which inhabits a large region between Dahomey and the lower

Niger. They are negroes, but more civilized than the natives we met along the coast.

All these people except the little children wear clothing. The women are clad in bright cottons. Some have cloths wrapped tightly around their bodies under the arms, and falling on one side to the knee, and on the other to the feet. Others have a cloth about the waist and over the shoulders, and some a third cloth tied around the head like a turban. Many of the women have black babies fastened to their shining black shoulders. The little ones laugh and coo as their mothers walk through the streets, work in the fields, or sell goods in the market. Now and then a baby cries, but this does not bother the mother, who allows it to cry on.

Some of the men wear loose trousers, and cloths over their shoulders; others are bare to the waist, and have only a white cloth about the loins. A few, being Mohammedans, have turbans and gowns.

Most of the Yoruban men go bareheaded and all are barefooted. Their features are much like those of our negroes, save that every one has more or less scars. How many bald men there are! That comes from shaving. The men shave not only their faces even to the eyebrows and nostrils, but also their heads. The scars are made in youth, every boy being marked with certain cuts denoting his family and tribe. The people can tell just who a man is by his scars.

In company with the guide we make our way through the city, watching the natives at work. The Yorubans have many industries. Blacksmiths, carpenters, hatmakers, and tailors are plying their trades in their homes. Here they are smelting iron, there making bags and satchels, and farther on they are weaving bright-colored cloths. These

The Europeans have erected many hospitals like this one in West Africa, and are trying to make the cities more sanitary and healthful.

people are noted for their tools, baskets, pottery, and jewelry. Like the other tribes of this region, they are fond of music; and we often listen to concerts by native bands.

We go to the market, where thousands are buying and selling all sorts of native manufactures, together with the grains, fruits, and vegetables raised on the farms. Peddlers with their wares on their heads are moving about, and many are squatting on the ground with their merchandise piled up before them. Notice the cowrie shells, which are the chief money of the Yorubans. It takes forty shells to equal an American cent. We buy a half bushel, and give them to our guide to purchase curios for us to take back home. Next we stop at a cook stand where sweet potatoes are steaming in earthen pots, and afterward eat a cake of corn meal dough fried in palm oil.

The Yorubans have fine vegetables and fruits, among them pineapples, mangoes, and oranges. They are fond of ekkaw, which is fermented Indian meal boiled in large pots

to the thickness of cream. They steam yams and pound them into a paste which is eaten with sauce. Another favorite dish is beans stewed in palm oil; they also eat chickens and mutton, and like fat dog meat served with a peculiar sauce.

Wild honey is sold in the market, and also sugar cane, which the children buy and suck as we do stick candy. Nearly everyone uses snuff, but the people put the snuff on their tongues instead of into their noses.

The Yorubans are still wild and savage, but less so than they were in the past. They are governed by a native king, under the direction of the British; but they still believe in witch doctors and worship spirits of various kinds. There are many missionaries working among them. They tell us that the natives are improving, but that it will be a long time before they will become what we call civilized.

Taking the train, we go north to the Niger River, passing through Ibadan, and then voyage back to the coast. Our ship moves along the delta of the Niger, passing its many mouths. The country is low and swampy, and so unhealthful that we do not attempt to go inland. Our boat stays a few hours at Calabar, at the mouth of the river of that name. It is an important port of southern Nigeria, noted as a trading center from which ivory, palm oil, and other native products are shipped to Europe.

Here we meet Englishmen who have lived for years in Africa. They describe the negroes who live along the Binue and the lower Niger as less civilized than the Yorubans. Slavery is common, and in the past there have been human sacrifices. The natives wear little clothing, but a great many ornaments, including bracelets and anklets of ivory, brass wire, and beads. The products are about the same as in the regions we have recently visited.

XXXIII. FRENCH EQUATORIAL AFRICA

FROM Calabar we steam south and then east, soon reaching Cameroon, the great territory which belonged to Germany before the World War, but which is now under the protectorate of the French and the British. Cameroon extends from the Gulf of Guinea almost to the Sahara. It goes as far north as Lake Chad, and includes as much territory as our New England and Middle Atlantic states, with West Virginia added thereto. It has a population of almost three millions, including some of the most savage tribes of the African continent.

The British control only a small part of the country which belonged to the Germans. A narrow strip as big as South Carolina adjoining Nigeria was awarded to them. The remainder, which comprises more than five sixths of Cameroon, was given to the French, and now forms a part of their great province, French Equatorial Africa. This lies between the British possession known as Nigeria and the Belgian Congo, from which it is separated by the great Congo River. The country extends north to the sandy Sahara, and includes what was formerly the French Congo, in addition to Cameroon. The whole territory is about one sixteenth as large as the United States, with a population about one fortieth that of our country. It is now ruled by a governor-general, who has his capital at Brazzaville, a little town on the Congo River several hundred miles from its mouth.

We call at several of the ports of French Equatorial Africa on our way down the coast. The land near the sea is low and heavily wooded. Farther back is a range of high mountains covered with forests, and beyond it are high grassy plateaus. These highlands are the homes of countless elephants, leopards, lions, antelopes, and wild buffaloes.

The work of improving the harbor of Cameroon was begun by the Germans when they controlled the country.

The forests of equatorial Africa are the home of the gorilla, the largest and fiercest of the monkey family.

In the coast lands are beautiful birds, myriads of insects, and gorgeous butterflies; at night the air is alive with fireflies and phosphorescent beetles, and in the daytime strange water birds may be seen along the shore. There are ibises, cranes, and wild ducks, swimming or wading about the mouths of the rivers, and huge pelicans which are catching fish with their bills and storing them away in the pouches under their necks. They continue fishing until their pouches are full, and then sit sleepily down in the water to digest the catch at their leisure. The pelican's pouch takes the place of our pockets, which we sometimes fill with apples to eat later on.

In the rivers of this part of the world there are many crocodiles and families of hippopotamuses, while along the banks of the Gabun and the Ogowe are the homes of the gorilla and chimpanzee, the terrible man apes. The gorilla is the largest and fiercest of the monkey tribe. When full grown it is five or six feet tall, and looks not unlike a great

ugly man covered with thick reddish-brown or black hair. It has an enormous body with a huge chest, and long arms which are so strong that it can take a gun barrel and double it up in its hands. It has hands like a man, with a thumb and four long fingers. Its feet serve also as hands, so that it can climb trees as well as the smallest monkey.

Gorillas are usually found far from the settlements, in the loneliest and darkest parts of the jungle. They live in families; the parents and children staying together. Sometimes a family will sleep at the foot of a tree and sometimes in it, high up from the ground, making a bed like a hammock by tying the branches together with vines and laying leaves upon them.

These beasts feed upon the fruits, nuts, vegetables, and roots which grow wild in the woods. They eat small animals and birds, being especially fond of eggs, and hunt birds' nests to get them.

Gorillas are very fierce. They shun man, but if attacked will fight to the death. When surprised the young gorillas run away, but the parents stay to keep off the enemy, pounding their huge chests with rage and roaring with a noise like thunder. They gnash their sharp white teeth, and if they can get hold of one's gun will bite dents in the steel.

Chimpanzees are much the same as gorillas, although not so large. They usually go about on all fours, but can walk erect better than other monkeys. They climb the trees, swinging themselves from branch to branch.

But what kind of people live in these regions? The population includes a number of tribes, which speak many languages, and have different customs and religions. The people along the coast are almost pure negroes, while farther north are men of mixed races.

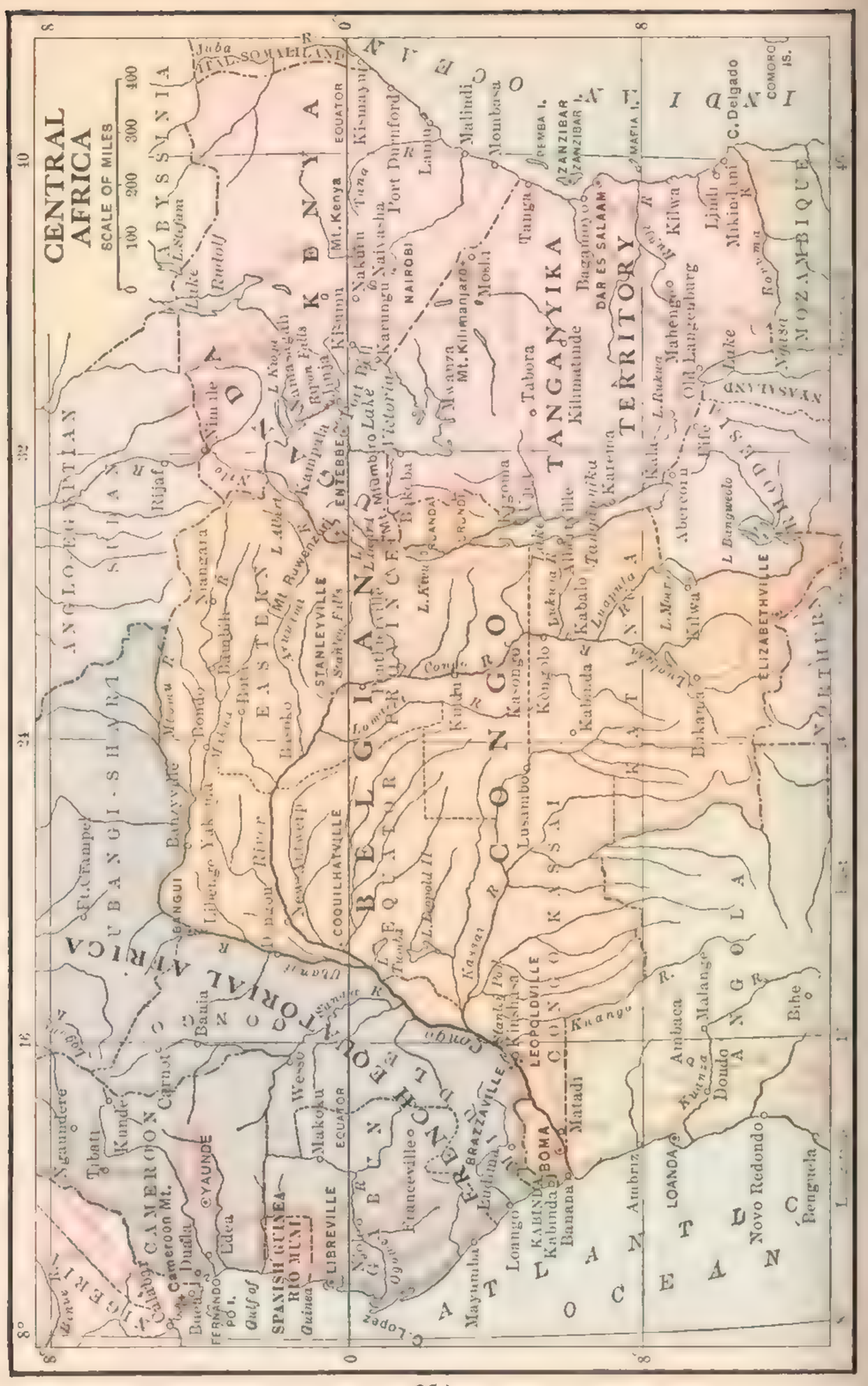
The official and government buildings of Cameroon are in the European style.

Going northward toward the Sahara, one comes into a land where the people are chiefly Mohammedans, and Mohammedan traders are to be found almost everywhere.

Many of the tribes in this part of Africa are savages. Slavery is quite common among the natives. A man's wives are little more than slaves, and throughout a great part of Africa wives are looked upon as so much property, and a man's wealth is estimated by the number of wives he has.

Among the most important races are the Fans, who are specially noted for smelting iron and making knives, spear-heads, and axes. They are also skilled elephant hunters. They drive the animals into pits and kill them with spears.

Going along the coast of French Equatorial Africa, we find factories like those we saw farther north. The towns



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are small. The country is very unhealthful, and white men are almost sure to have fever. The Europeans who live here are chiefly merchants and government officials, with a few missionaries and teachers. The products of the colony are about the same as those we have already noted along the Gulf of Guinea. There are some plantations of cacao and rubber along the coast, and attempts are being made to raise sugar and cotton. The French are planting cloves, vanilla, ginger, and pepper, establishing schools, and cutting out roads to open up parts of the country. Some railways are now being built, and the colony has several thousand miles of telegraph lines.

1. Where is Nigeria? To whom does the colony belong? What part of it did we visit on our way west from Lake Chad? Describe Kano and Kuka. What is the capital of the colony? Make a trip by railway from there to Kano, describing the country.

2. Visit Abeokuta and tell what you see. How did it get its name?

3. Trace on the map our route from Calabar to the mouth of the Congo. Along the shores of what country do we travel? To whom does it belong? Who owned it before the World War? What giant of the monkey family lives there? Tell all you can about it.

4. What are the chief products of French Equatorial Africa? Of Nigeria?

XXXIV. IN THE BELGIAN CONGO

STEAMING on southward along the coast of French Equatorial Africa, we see that the color of the water is changing. The bright green of the ocean has disappeared, and the waves are yellow under the rays of the sun. When we take our baths in the morning the tub is sprinkled with mud, and the great screw at the stern of the steamer churns

up a coffee-like foam. The change in the sea has come from the vast floods of the Congo River, whose silt discolors the waters many miles from its mouth.

Next to the Amazon, the Congo brings down more water than any other river. It is not so long as the Nile, but is greater in volume than the Mississippi. It drains a basin as large as half the United States proper, and the earth washings carried out into the sea every year are so much that if they could be piled up in one place they would form a great block a mile square and almost as high as the Washington Monument.

The length of the Congo is almost as great as the distance from New York to San Francisco, and two of its tributaries, the Kassai and Ubangi, are each almost as long as the distance from the Atlantic Ocean to the Great Salt Lake. The river has many tributaries, and its navigable waterways, if stretched out in one line, would reach about halfway around the globe. So numerous are the rivers that there is hardly a spot in the whole basin that is eighty miles distant from a navigable waterway.

From its mouth to Matadi, about one hundred miles inland, the Congo is more like a long lake than a river. It is five or six miles wide, and in many places three hundred feet deep. From Matadi to Stanley Pool, about two hundred miles, there is a series of cataracts; but above that to Stanley Falls are more than one thousand miles of open river, upon which steamboats can travel as well as on the Mississippi or the lower parts of the Hudson. Still farther inland are long stretches of fine waterways, the river extending on and on, with many tributaries, until at last it is connected by the Lukuga with Lake Tanganyika, and by the Luapula and the Lualaba with other great lakes farther south, not far from the watershed of the Zambezi. On the

north the headwaters of its tributaries come very close to those of Lake Albert, Lake Victoria, and the other head waters of the Nile.

The Congo basin is one of the wonders of nature. Except where the river breaks through, it is shut in from the Atlantic by a wall of mountains. There are highlands all about it, and scientists tell us that it was once covered by a vast inland sea from five hundred to one thousand feet deep, and so large that the evaporation of its waters filled the air with moisture, giving rains to a great part of the Sahara and the Libian desert.

Then this sea began to overflow at the west, through a sandy pass in the mountains. The waters cut the pass down into the gorge, where the cataracts of the Congo now are, and before long they made a deep trough out to the ocean. As the gorge grew deeper and deeper, more and more of the waters flowed off until the land was left as it is to-day.

This happened ages ago, and now all the water that falls in the basin is carried out to the sea by the Congo. The basin is covered with vast forests and grassy plains, inhabited by wild animals, birds, and insects, and by millions of more or less savage men. We shall see all this for ourselves as we travel up the river.

As our ship nears the wide mouth of the Congo the water grows muddy, and as the ship steams into the river the water has the color of pea soup. Now our ship moves more slowly in the strong current. There are natives here and there fishing in rude boats far out in the stream, enormous crocodiles are sleeping on the sand banks, and from time to time storks, pelicans, or wild geese fly over us. Now we see a flock of wild ducks, and now white cranes, flying together, float like a great sheet across the sky.

Clothing made of grass is worn by certain of the Congo natives.

We pass Banana Point, a long, sandy peninsula, formed by the ocean and river, on which some factories or warehouses are located, and steam onward eighty miles farther up to Boma, the African seat of the Belgian government, which rules the Belgian Congo.

The country is flat and covered with woods. There are many creeks flowing into the river. We pass large islands and numerous sand banks.

We can see Boma long before we come to it. The town has two parts; one, consisting of warehouses and other business buildings, lies close to the water; and the other, containing the public offices, churches, stores, schools, and homes of the foreigners, is on the hills farther back. The crude homes of the natives are to be found in every part of the town.

Our ship anchors at a long iron pier, and Belgian officers in uniform come on board, while black-faced, barelegged policemen in blue Zouave suits and white helmets stay on the pier to keep back the natives.

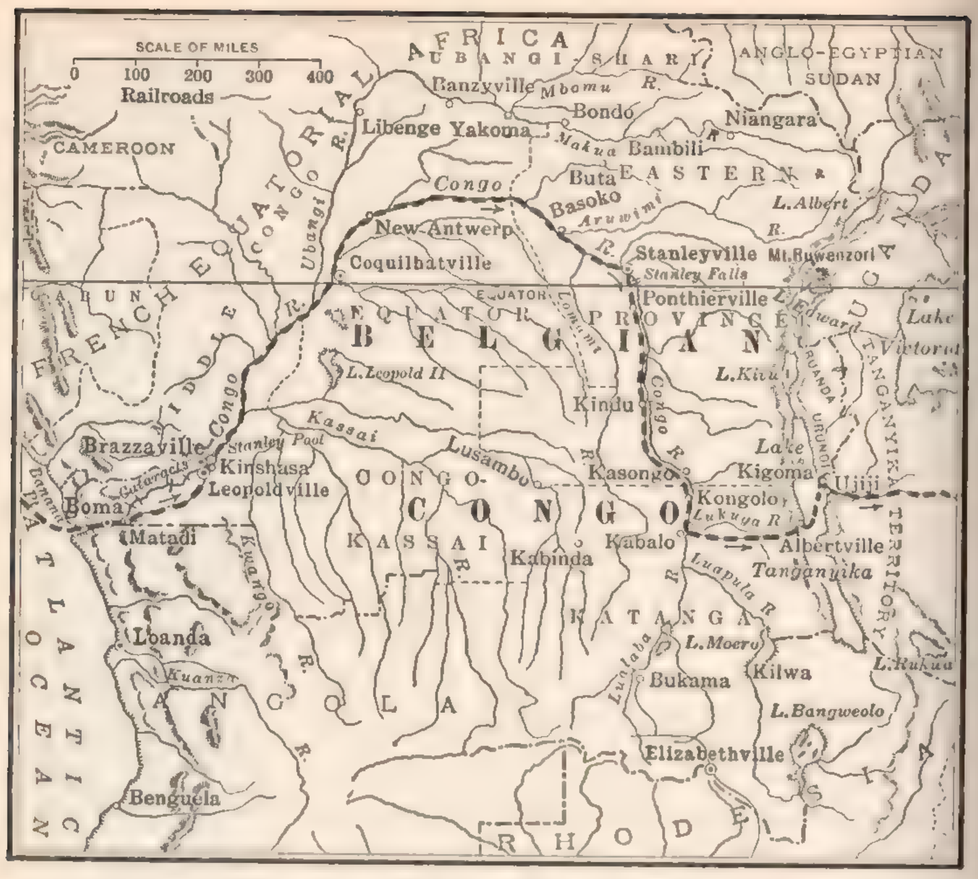
We land and walk to a hotel in the lower part of the city. Black Congo boys carry our baggage up to our rooms; they do not understand English, and we have to make signs to get what we want.

Later we visit the governor-general and his officials to learn about the colony and to plan our tour. Most of the Congo basin is now a dependency of Belgium. It is known

as the Belgian Congo, and is ruled by the King of Belgium through the governor-general and his assistants. The colony contains over nine hundred thousand square miles. It is about one fourth as large as the whole United States, including Alaska, and is seventy-six times as large as Belgium itself. The population is eight and a half millions, or one twelfth as many people as we have in our country, and it requires several thousand European officials and a considerable army of police to keep the people in order.

The governor-general describes the developments that are going on in this part of Africa. He tells us the Belgian Congo is rapidly establishing post offices. It belongs to the Postal Union, and we can send letters to almost any part of it. It has more than two thousand miles of telegraph lines, and some of the larger towns have their own telephone service. There are fifteen wireless stations, and one can send cables from Boma to Europe.

The governor lays before us a map of the Congo basin and points out the many short railways which have recently been built and the places to which we can go on the rivers by steam. He tells us we can ride by rail from Matadi, a port near the mouth of the Congo, to Leopoldville, another port two hundred and fifty miles inland. This trip will take us around the cataracts of the Congo, and enable us to reach the steamers that go from the end of the railway many hundred miles into the interior. He shows us the other railways which have been built to piece out the navigation of the upper Congo and how we can use them on our trips through the country. He advises us to go to Kinshasa on Stanley Pool, and thence take the steamer for a thousand miles up the Congo to Stanley Falls. Here is another railway beginning at Stanleyville running south to Ponthierville, from where we can go on by river and by



Our route in the Belgian Congo.

rail to Kabalo, and thence by railway eastward to Albertville on Lake Tanganyika, from where we can steam across into Tanganyika Territory. It is by that route we shall travel.

The Belgian Congo also has railways running north from the Cape of Good Hope in southern Africa to Elizabethville and to the copper mines in the province of Katanga. The distance from Cape Town to Elizabethville is as far as from New York to Salt Lake City, and it is probable that within not many years one will be able to cross the whole of this vast country by rail. The road from Cape Town to

Elizabethville is a part of the Cape-to-Cairo road, much of which is yet to be built.

In addition to the railways, the Belgian Congo has about six thousand miles of roads, some of them suitable for automobiles. Most of the travel, however, is on footpaths, which wind their way in a network throughout the country.

The officials in Boma tell us that the people of the Congo are much more civilized than those along the Gulf of Guinea. They differ from the Gulf negroes in color and features. Their skins are brown rather than black, and not a few have straight noses and small hands and feet. Many are tall and fine looking. Some have wavy hair, while others have the wool of the negro. There is a vast number of tribes, each of which has its own section of the country, and many of the people are Bantus, a mixture of the negro race with the races we saw in northern Africa, which long ago crossed over from Asia and gradually populated the country.

The Bantus are to be found about the great lakes and in the valley of the Congo. They live also in most parts of southern Africa, except in the southwest, where we find the little black-skinned Hottentots and Bushmen. They are divided into tribes, ranging in number from a few hundred families to many thousands, each ruled by a king or chief. Each tribe has its own country, and many have villages.

The Bantus have various habits and customs. Some are peaceful and industrious, and others are warlike and bad. All are superstitious, believing in witches and spirits. Everybody has his fetish, and every tribe its witch doctor. Many Bantus are cannibals; nearly all have at times held slaves, and slavery is still common in some parts of the country. The different tribes make war upon one another,

so that their villages are like armed camps with the people always on the outlook for an enemy.

These people speak a language far different from that of the natives of Morocco, Algeria, and Egypt; a language which is much the same throughout the whole Bantu race, although each tribe has its own dialect. The Bantus of the Congo valley to some extent govern themselves, but each district is also under the control of a Belgian commissioner and his agents and officials.

The governor-general at Boma gives us letters to the various commissioners, and we take one of the steamers to the port of Matadi, about ninety miles from the mouth of the Congo. Here a railroad, which the Belgians have built, carries passengers and freight about the cataracts and rapids over which the vast river pours between Matadi and Stanley Pool, which is more than one thousand feet above the sea level. Beyond Stanley Pool the river is navigable for large steamers for more than a thousand miles, and above Stanley Falls there are many hundreds of miles of navigable waterway. The railway from Matadi is a narrow gauge. It is only two hundred and fifty miles long, but in proportion to its length is one of the most important railways of the world; for it will form the downspout of the vast trade which is bound to develop in this region.

Our ride is most picturesque. The cars are open at the sides; we travel slowly and can see almost as well as though we were traveling in a carriage. Much of the track is far back from the river; and the road curves this way and that as it climbs the hills. Now we cross a great chasm matted with jungle, now we pass through forests where the trees are bound together with vines, and now we are so close to the Congo that we can see the mighty river boiling along through the gorges on its way to the ocean.

At last we reach the plateau and then drop to Kinshasa, near Leopoldville, at the southern end of Stanley Pool. Here there are great stores and warehouses. There are thousands of natives and several hundred white people living in the town. We see scores of automobiles moving over the roads. There are big river steamers at the wharf, and we watch them unloading palm oil, skins, rubber, and other wares which will be taken down to Matadi by rail, and thence by steamer to Antwerp. We find a steamer ready to start up the river, and take passage, covering our berths with mosquito netting to protect us from the poisonous insects we shall meet on the way.

XXXV. LIFE ON THE CONGO

WE have been traveling for weeks upon the Congo River, steaming along from village to village, now stopping to visit a market, and now making excursions into the country to study the people.

After leaving Leopoldville we were several hours crossing Stanley Pool. It is a great lake, right in the course of the Congo, twenty-five miles long and fifteen miles wide, with many islands. Some of the islands are floating; they are made of reeds and grass, with roots so firmly knotted together that birds and even men can stand upon them. They have been torn from the mainland by the current, and are moving down toward the sea. Other islands are fixed, and upon some of them are hippopotamuses which have swum across from the mainland.

As we go on up the Congo in our comfortable steamer, the river is wide in some places and narrow in others. We are often close to the shore, and can see the strange

vegetable and animal life upon its banks. Many alligators lie like brown logs on the edge of the water and near them now and then a hippopotamus stands and yawns at us, showing its large teeth. In one place we see a baby hippopotamus on the back of its mother, which is swimming with little more than her nose out of the water.

There are water birds of all kinds. We see storks and wild geese, and now and then shoot at a flock of gray parrots as they fly over our boat, whistling and screaming. There are parrots in the oil palm trees on the banks, and at one of the villages a boy brings several to the steamer for sale. The birds are not so fine as the bright-colored parrots of South America and Australia, but they have a variety of notes, and whistle most beautifully.

There are many other birds, the names of which we do not know. There are cuckoos, woodpeckers, large and small hornbills, tree ducks, great kingfishers, giant herons, eagles, hawks, vultures, and enormous bats. There are pigeons with greenish-gray bodies, plantain birds of bright blue with yellowish breasts, and strangest of all, little crocodile birds which play about the crocodiles on the banks, perching upon them and warning them when anyone comes near.

And the larger animals! We never get tired of looking at the hippopotamuses, especially the babies, which are pink, and at the monkeys which hang over the water chattering at us from the trees. Now we see an elephant bathing in the river by moonlight, and now catch sight of a river-hog or buffalo peeping at us through the long grass on the banks.

The mosquitoes are terribly troublesome, and when we swim in the Congo there are horrible little black flies which attack us in clouds, settling on every spot of bare skin and

sucking our blood. There are ants as fierce as those we saw on the upper Niger, and every night we go over our feet carefully, searching for chiggers. We have to look out for snakes and centipedes, and also for wasps and bees. There are many beautiful locusts, bright-colored beetles, and butterflies of the most gorgeous description.

The country changes from time to time as we go onward. Here and there we wait over a steamer and take long trips far back from the river. These journeys on shore are full of new and strange things. Now we pass through groves where wild flowers are blooming under the trees, and now see woods bound together into a jungle by long vines. There are orchids hanging from the branches and the trunks of the trees, and there are many strange climbing plants.

Much of the Belgian Congo is treeless, but covered with a high grass that is more difficult to travel through than forests. The stalks are so thick that one cannot see far, and the blades are so sharp they scratch our faces. The stalks are often twelve feet in height; so that, as we walk along the paths, we seem to be in a narrow aisle walled with green. Wherever the grass is bent over it twists itself around our ankles. When it rains the long blades become loaded with water, which drops down upon us as we push our way through. The path becomes a ditch, and we walk in a little stream, splashing our way, whipped by the tall stalks at every turn.

Such paths serve as the highroads of the Congo valley, and it is along roads like these that we make most of our way over the country from village to village. Here and there we find a motor road between the chief centers, and the government is building new highways. The trails, however, are still the principal lines of traffic. Almost the whole continent is covered with footpaths, and one can go everywhere

Modern roads are being built in the Congo, which was once penetrated only by footpaths.

by following these narrow, winding ways through forest and plain, which have been worn down by the bare feet of thousands who month by month and year by year for generations, have been going single file, over the same ground. The forest paths are more winding than those of the open country, and turns are made to avoid fallen trees and other obstacles; but they are everywhere narrow and regularly traveled.

We walk carefully, as we go along single file, looking out for quagmires and pitfalls as we approach the villages, sometimes prodding the leaves on the road to see if the ground is solid. The native tribes are always warring upon one another. The villages are protected by stockades, and along the roads leading to them sharpened sticks dipped in poison are stuck in the ground and covered with leaves

which look as though they had fallen from the trees near by. These sticks will run into one's foot if he steps upon them, and the poison is so strong that a scratch causes death.

Fighting is so common in the Congo valley that almost every village has a fence of rude posts about it. The posts are sharpened at the top so that it would be hard to climb over them; they are set close and bound together with vines. There is often a ditch outside the stockade.

The people are interesting. We come upon new tribes every week, and they vary so much in customs and features that we despair of remembering them all. Some are as black as the negroes of the Gulf Coast, and look not unlike them. Some are dark brown and others almost yellow. They all belong to this Bantu race, which we shall meet everywhere from now on. Many of the men have scars on their faces and other parts of the body, cut in as ornaments or for purposes of personal identification. The scars are different in different tribes, and one can tell to what family a person belongs by his scars.

Many of the people go almost naked, and some have little more than a strip of cotton about the waist. The chiefs of some tribes wear enormous straw hats shaped like stovepipes, waist cloths, and jewelry of brass or shells. The women have short petticoats of grass, which stand out from the body; in other tribes they wear bark cloth or bright-colored cottons. Everywhere Americana, or cotton cloth made in our country, is popular.

All grease themselves with oil, and put up their hair with oil and clay. Each tribe has its own way of dressing the hair. In some, the women and sometimes the men wear it in a great horn on the top of the head, and in others they have horns of hair over the forehead. Some twist it on fine wires so that it stands out in every direction like snakes,

while others braid it so that it falls down in little tails over the cheeks. They tie cowrie shells, feathers, and other things into the hair, and put it up in knots of many shapes. Some of the men shave their heads all over, or in spots.

All are fond of jewelry. Both men and women wear bracelets and anklets of brass beads or shells. The women often have heavy brass collars around their necks; some have sticks or grass stems stuck through holes in their noses and ears, and almost every one wears a charm of some kind to keep off evil spirits.

We spend much time in the villages along the banks of the Congo. There are thousands of them scattered through the great basin, some containing only a few families and others large enough to be called cities. The villages are much like those we have already seen in our travels, being made up of round or square huts thatched with straw. Many of the huts have conical roofs, and in some cases the roofs extend out over the front, covering an open place where the people sit and smoke or sleep during the heat of the day, and where in the evening they gossip and chat.

These people do much dancing. Every town has its musicians, who often sing and play far into the night. They live chiefly for the hour. They get up about dawn and have breakfast, which may consist of fish and mandioca roasted over the coals. The mandioca is much like potatoes. Then they clean their teeth, and comb out their hair, while the mother washes the babies and looks over their feet to see if any chiggers have laid their eggs there. After this the women go to their work in the fields and the men start out to look up their bird snares and fish traps, or they may have an elephant pit to keep track of. They must also be on guard against hostile neighbors. Some may work at their trades, and both women and men start out early to carry vegetables

or goods to the nearest market. At noon every one who is near enough home comes in for several hours' rest and then goes back to work. Toward night they eat the second or chief meal of the day, although they may take a snack or so between times. The evenings are usually spent in chatting, dancing, or other amusements.

The Congo mother carries her baby on her back while she pounds corn into meal in a hollowed tree trunk.

There are little black children everywhere. We see them at their games. The babies have rattles and the little girls rude dolls. They sit on the ground and make mud pies and play at cooking and housekeeping. Even the small boys on the banks of the Congo are good swimmers; they also learn to fish, to snare birds, and to shoot with bows and arrows. They gather round us as we go through the villages and wonder at our strange clothing. At one place we let a boy hear a watch tick, and he says the noise must come from an animal inside the case.

A stool carved of wood. Many African tribes are skilled in this work.

These people live simply. Their huts have little furniture. Only the chiefs and the rich have beds. The others sleep on the ground, often using a wooden pillow. This is a block hollowed out like a bow so that it fits under the neck, raising the head from the ground and keeping the gorgeous headdress from mussing.

There is sometimes a fire hole in the center of the hut, the smoke of which keeps away the mosquitoes. The fires for cooking are often built outside, and some houses have also cooking sheds.

In many of the villages we see what look like great barrels covered with grass; they stand upon posts with thatched roofs above them. Those are granaries in which the corn and peanuts and such things are stored until needed. They are high up to be safe from the rats, snakes, and other vermin. In some places the grain is stored in bags tied to the roof.

The largest house in the town usually belongs to the chief. It may have smaller huts about it, the homes of his wives and slaves, and sometimes a pile of ivory tusks from elephants trapped by the natives.

In many villages there are mechanics, who, we learn, make goods for sale. One town is noted for its pottery, another

for its fish nets, and a third for swords, knives, hoes, and farm tools. Nearly every village has its blacksmith shop, which is one of the busiest places in town. The shop is an open shed with a thatched roof, the bellows a rude box of wood and skin, and the anvil a block of iron about as large as a paving brick.

These people smelt iron with charcoal, and shape it with rude hammers. The men are noted for trapping and fishing. In some tribes they think it beneath them to till the ground, for that is woman's work, so they spend most of their time in the chase or in making war upon their neighbors.

The Congo women have plenty of work. They take care of the houses and do all the cooking. They cultivate the gardens outside the towns, and gather the corn and store it in the granaries. In some places they are little more than slaves. They are bought and sold, and are often cruelly treated. In some parts of the Congo slavery is common. Some of the far-away tribes are still cannibals. When such tribes are at war, they expect to feast on their captives, and a not uncommon taunt to an enemy is the exclamation, "You shall rest in my stomach to-morrow."

Many of the Congo people have some idea of God, but all are superstitious. They fear witches, and believe that their charms and images will work good or evil. Everybody supposes his happiness or misery depends largely upon his charm or fetish; and he who is successful is thought to have a better fetish than others.

These ideas are slowly passing away. Missionaries are working in different parts of the Congo basin, and they tell us that some of the black boys and girls are becoming civilized.

Moreover, cannibalism is being put down by the Belgian government, and foreigners are not permitted to enslave

American missionaries have founded schools, in which the native children learn to read and write.

the people, although slavery still exists among the natives. Indeed, a man's wives are little more than his slaves, and his wealth is usually measured by the number of wives he has. The usual method of marriage is by purchase of the bride from her parents, or by giving a fixed number of presents for her. In the past, when a man died, his wives and servants were sometimes killed and buried with him in order that they might work for him in the next world. This is not permitted now.

The Belgian government has already established schools at Boma, Leopoldville, and Stanleyville, where native boys from twelve to twenty years of age learn trades and are taught reading and writing. We see school children now and

then as we go up the valley, and find that some of them even know a little geography. They have learned that the earth is round. Their fathers thought it was flat, and that the home of the white man was under the sea, because the ships going away from the coast seemed to sink slowly down into the water and those coming in to rise up out of it, for the masts were first seen and then the hulls. The little black boys are now being taught that this is one of the best proofs that the earth is a globe.

So far, most of the educational work has been done by the missionaries sent out by the Protestant and Roman Catholic churches of Europe and the United States. There are many mission stations, and more than a thousand missionaries at work.

XXXVI. TRADE AND COMMERCE OF THE CONGO

DURING our voyage up the Congo we learn of its great value as a commercial highway. It is about the only road by which the products of this vast river basin can get out to the ocean; and some large European trading companies have established factories and warehouses on its banks.

Goods are taken from these stations to all parts of the Congo basin, and the native produce brought back. In many places this work is done by porters who carry the goods on their heads, marching single file for days along the narrow African paths. In others the goods are carried in native boats on the streams. Upon the Congo and its chief tributaries steamers are always moving from station to station, leaving foreign goods to be sent out, and taking on cargoes for the railroad at Stanley Pool.

Before that road was built everything had to be carried on the heads of men past the cataracts to the navigable river below. Now all goes by train to Matadi, where it is transshipped to the steamers of the lower Congo or to the great ocean steamers which call at Matadi and Boma.

There are now steamship lines connecting the Congo with Antwerp, Hamburg, Rotterdam, and Liverpool, and the foreign commerce is rapidly increasing. It already amounts to many millions of dollars, and when the interior is further opened up by railway it will be greater still.

The most valuable products which the Congo now gives to the world are copper, rubber, palm nuts and palm oil, and ivory in the shape of elephant tusks. Other exports are peanuts and coffee and copal, a gum that is used to make varnish. Tobacco, which is grown in all the native villages, may become an important article of trade. The Congo rubber comes chiefly from vines, while that of the Amazon, the best rubber of the world, is from forest trees. The vines are cut, and the milk-like sap oozes out; it is boiled in iron pans and made into great flat cakes for export. Rubber is gotten also from the roots of certain plants, some of which run under the ground for a distance of one hundred feet. Rubber plantations are being set out and much of the world's rubber will come from here. To-day the chief sources of rubber are the Amazon valley and Malaysia, although much comes from other places.

The mineral products of the Belgian Congo increase in value from year to year. This vast territory has resources of coal, copper, silver, gold, iron, and tin, and diamonds as well. The diamonds come from the rivers, and something like one hundred thousand carats have been mined in one year. The principal diamond field so far discovered is in the southern part of the country on a branch of the Kassai River.

The copper of the Belgian Congo is found mostly in the province of Katanga, but the chief gold mines are in the far north, not far from Lake Albert. The copper is especially valuable, and tens of thousands of tons are now being taken out every year. The copper belt is two hundred miles long, and from thirty to sixty miles wide and the region promises to be one of the richest copper belts of the world. Railroads from Angola are being built into that region, and one can reach it also from South Africa by the Cape-to-Cairo railway.

This woman of the Makondi tribe wears a plug as big as a tumbler in her upper lip.

The methods of trade among the natives of the Congo are interesting. Much of the traffic is by barter, the people exchanging their products for bright-colored cottons, hardware, arms, and gunpowder. We shall see these various things in the markets, which are held once every four or eight days in almost all parts of the Congo basin. The African week is different from ours. It has only four days, and market day is considered the most important of all.

Suppose we visit a market and see how the Africans do business at home. They are great traders and will go miles to buy or sell. Thousands of people are often to be found

In the native market, beans, peas, and other small vegetables are sold by the pile.

in one market, some of whom have traveled days for the purpose.

We hear the din of the buying and selling long before we reach the market. It is situated in a grove of shade trees out in the country. There are hundreds of black men, women, and children, scantily clad, moving to and fro under the branches. Some are sitting on the ground with pots and baskets before them, others have their wares piled upon a carpet of leaves, and still others have rude tents or shelters to keep off the sun. Some are bending over, arranging their merchandise; some are carrying it on their heads from place to place; and some are going to and fro, sampling the wares and buying goods to take home. There are many women among the purchasers, and not a few have babies tied to their backs or sitting astride their hips, as African babies are usually carried.

How noisy it is! The whole market seems to be shouting at once. The people scold as they buy; and the women fairly scream at each other. Those peddlers with goods on their heads are crying their wares. That man over there is telling a story, and the women about him are laughing. See, they have thrown back their heads and their white teeth show out against their dark faces. Step aside for that man with the sheep on his head! You must not get angry if you are jostled here, for these people do not consider it proper to quarrel on market days. Besides, there are government police to keep order.

Strolling with our guide, we make our way from one class of peddlers to another. The market is so divided that each kind of merchandise has its own quarter. Here they are selling tobacco and kola nuts, there peanuts and bananas, while farther on are sweet potatoes, manioc, cabbages, pumpkins, and Indian corn. We fill our pockets with pea-

nuts, and each of us buys a stick of sugar cane to eat as we move on.

What are those round dumplings piled up on the ground? They look like loaves of unbaked dough. That is the chief bread of the Congo. It is made of manioc, a root much like the sweet potato, only larger. The manioc is first mashed to a pulp and then soaked in running water for twenty-four hours to wash out a bitter acid contained in it. After this the pulp is allowed to ferment, and then is mixed into a stiff paste. When cooked, it is sliced up and fried in palm oil, butter, or peanut oil. It now looks and tastes like sour dough. It is very nutritious.

In one quarter of the market are the butchers with fresh meat, and near them are live sheep and goats and also pigs, chickens, and ducks. The fowls are kept in wicker cages, and beside them are fresh eggs in finely plaited baskets. The sheep are beautiful animals, but I venture to say you never saw such sheep before. They are covered with fine long hair. Is this not a strange country where the men, women, and children have wool on their heads and the sheep grow beautiful hair?

We buy spear heads and knives of native make from the blacksmiths, who show us also collars and bracelets and anklets of brass. Some of the women near us wear brass collars, each of which weighs many pounds; they are welded on to their necks, and have to be broken before they can be removed. In another quarter we buy pieces of the native cloth made in the villages; we notice also beautiful basket-work, fish traps, and meal sieves. Near by are women selling pottery made of red clay, and a man who has some wooden pillows offers them to us at a low price.

Few foreign goods are sold in the market. We are some distance back from the river, and such things are rare

and costly. Still there are white American cottons from the United States, bright-colored cottons from England, knives from Germany, and gunpowder from Belgium. Here, men are trading gay handkerchiefs and glass beads for india rubber, and there, they are exchanging brass rods for all sorts of native goods.

We observe that but little money is used in the markets. The several articles are traded one for the other, sometimes at a valuation of so many brass rods for each. Brass rods have for a long time been used as money in many parts of the Congo basin. Different markets have different articles which pass as currency, and goods and money vary in price according to the fashion and taste of the people. In one village blue beads will buy more than white beads, and in another the standard of value is red cotton handkerchiefs. In some markets cowrie shells, such as we saw along the Niger, are commonly used, while still farther on bright-colored calicoes, needles, and pins, brass tacks, or pieces of wire will buy what we want. One of the most valuable things sold everywhere is salt. In this market a pint cup is the wholesale salt measure, and we are assured that a very little salt is a fair price for a slave boy or girl.

XXXVII. IN THE GREAT AFRICAN FORESTS—PYGMIES

TRAVELING on up the Congo, we enter the great African forest, one of the largest on earth. It covers the whole region of the upper Congo, extending southward to the watershed of the Zambezi, and northward to the watershed of the Nile. It reaches eastward almost to Lake Tanganyika. This dense forest may be compared only with

the valley of the Amazon. The region is about eight times as big as Ohio and forty times the size of Massachusetts. It is so vast that we can hope to explore but a small part of it, and shall confine our tour to the river, now and then taking excursions off into the woods. Only a small part of this forest has ever been trodden by white men. When Henry M. Stanley, the famous explorer, crossed Africa, he traveled through it, and other explorers have visited parts here and there.

We can learn something of the nature of the forest as we move slowly along, close to the banks of the Congo. The dense trees come right down to the river and extend out from it for hundreds of miles. They are so thick, and their branches are so interwoven that they shut out the sun. We can see inland only a few yards from the banks, and when we go off into the midst of the forest we find it like twilight at noonday. The trees are of all sizes, some of them being almost two hundred feet high. They are bound together with ropes and cables of vines, which wind about them like snakes and hang down in long strings. There are both soft and hard woods. There are many mahogany trees and other timber which would be very valuable if it could be floated down to the ocean.

It is hot everywhere in these forests. They are cut by the equator, and the rays of the sun have great strength. The breeze is shut out and a warm vapor rises from the moist ground. Many of the trees wear a thick coat of moss, and some have orchids and other air plants clinging to them. Here is one which has been struck by lightning; those saplings beside it have been broken down by an elephant herd which has crashed its way through. On the opposite side of the path are trees with big balls of gum oozing out of holes which the birds have pecked.

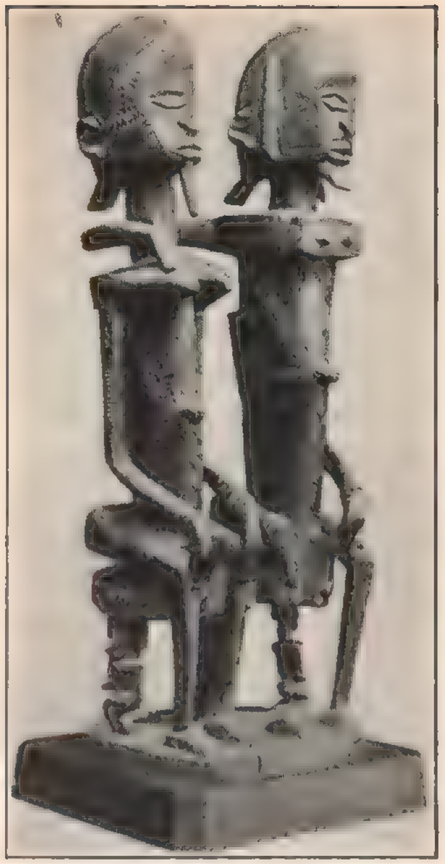
The ground is covered with fallen branches and dead trees. Our feet sink into the decaying vegetation; we soon grow weary and sit down to rest on the dead trunks which lie all about us. We do not sit long. The decayed wood is full of ants and other insects, which attack every inch of bare skin, biting us terribly. We have to look out for the wasps overhead; and we soon learn that the forest is alive with mosquitoes, flies of all kinds, and beetles and worms without number. We examine our feet every night, looking for chiggers, and at times the ants bite us so that our skin stings as though whipped by sharp nettles.

There are many monkeys and squirrels, also wild pigs and wild buffaloes, herds of elephants and bush antelopes, wild cats, and rats of immense size. At night the air is alive with bats, and in the daytime strange birds fly through the trees.

But what kind of people live in this great African forest? There are many tribes much like those we saw in the lower parts of the valley; and there are others so strange that if we did not see them ourselves we could hardly believe they exist.

Have you ever heard of the pygmies? They are a race of little people found in different parts of Africa, and especially in this great Congo forest. They are sometimes called Nains. The Nain men and women are not larger than fourteen-year-old American children, and the boys and girls of our age will not reach to our shoulders. Many of the women are under four feet in height, and some are only a little more than three feet. Still they are well formed, and look like other men and women. Many of the little women go about carrying their babies on their backs or astride their hips.

The pygmies are of different types. Some tribes are almost white, some have light brown skins, with hair



Figures used as fetishes, or idols, by Central African savages.

almost red, while others are as black as our boots, with black hair. The black pygmies are usually the tallest, although they are not so good looking as those of lighter color, having heavy jaws, deep set eyes, and flat noses. The lighter ones have large round eyes, round faces, well-formed figures, and small feet and hands, with long slender fingers.

These people wear but little clothing. The men have only a strip of cloth about the waist, and the women a short petticoat of leaves or an apron of bark. Some pierce holes in their upper lips and put porcupine quills and the teeth of various animals in them.

The pygmies are in a low state of civilization, and live more like beasts than men. They seldom clear the land, and have no farms or gardens. They have little villages, from which they go out to hunt, trap, and dig roots and other things for food. Their villages are usually not far away from the settlements of other tribes, and in such localities the pygmies often steal corn, tobacco, and bananas from their neighbors. If their thefts are not noticed, they may come back and leave skins or ivory to pay for the food they have taken.

These villages are different in different tribes. Some of

the little people live in caves, others put up shelters to serve for a short time only, and move from place to place. Some tribes arrange their dwellings in a circle around a cleared space in which the chief's house stands; others build their huts in rows.

The ordinary hut is seldom more than four feet in height and four or five feet in diameter. It is often made in oblong shape, being formed of branches stuck into the ground and tied together at the top, and then thatched with leaves or grass. The doors are so low that the pygmies have to crawl in.

These little people sleep on the ground or on beds of leaves spread out inside the hut. Some of the huts have two doors, one in front and one behind, in order that their owners may escape when attacked.

Most of the villages have pitfalls and poisoned sticks about them as a protection against their enemies. The pygmies use poisoned spears and arrows, a scratch from one of which may cause death. They are skillful bow-men, shooting arrows so fast that the first one will often not have fallen to the ground before the third has left the bow. They are expert hunters. They catch all kinds of birds and trap elephants in pits. They shoot the eyes of the elephants with their arrows, blinding them; and then follow them until they fall. They hunt birds for their feathers, and antelopes and monkeys for meat and skins.

The pygmies eat flesh of all sorts except that of man. They are fond of monkeys, rats, birds, and reptiles. They eat snails, white ants, bee grubs, and the larvae of certain beetles. They roast their meat on the coals and smoke some of it to preserve it for future use. The women usually do the cooking and the men hunt, trap, and fight. The boys are always practicing with their bows and arrows,

and as soon as they are old enough their fathers teach them to hunt.

The pygmy tribes have no common language, but they usually talk, more or less imperfectly, the tongues of the neighboring tribes. They are droll little bodies, elfish and full of fun. They are fond of singing, and use drums of sections of a hollow tree, covered with skin. They are intelligent and quick to learn, but timid and afraid of all tribes except their own. They try to return kindnesses, but are spiteful when ill-treated, and will wait a long time to revenge themselves upon their enemies. They remind us of the gnomes and sprites we read about in fairy stories.

Pygmies somewhat like these live in southern Africa and also near the great lakes and in French Equatorial Africa. Some live in Madagascar, where they climb trees like monkeys and swing themselves from branch to branch. They are found also in the Andaman Islands, in the Bay of Bengal, and in the Philippines, where they are known as Negritos, or little negroes. All of these pygmies are supposed by some to be the aborigines of the countries in which they are found.

1. Compare the Congo River with the other great rivers of the world; in length; in volume. How large a basin does it drain? How was the basin formed? What parts of the system are navigable?

2. Locate Boma, Matadi. Stanley Pool, Kinshasa, Stanley Falls, Albertville.

3. To what European country does the Congo belong? Compare the Congo in size and population with the United States.

4. Trace on the map the railroads of the Belgian Congo. Why is a railway necessary from Matadi to Leopoldville?

5. Who are the Bantus? Describe them, mentioning some of their habits and customs. Where do the pygmies live? Describe them. In what country under the United States flag are pygmies found? (See Carpenter's "Australia and the Islands of the Sea," page 191.) Contrast our pygmies with the African pygmies.

6. Take a trip up the Congo and describe its importance as a commercial waterway. What products are sent down it for export to Europe?

7. Name the chief products of the Congo Valley. What kinds of rubber are produced? Compare these with the rubber of the Amazon Valley. (See Carpenter's "South America.") Of Malaysia. (See Carpenter's "Asia.") Tell all you can about the uses of rubber. (See Carpenter's "How the World is Clothed.")

8. Where are the copper regions of the Belgian Congo? Tell all you can about the importance of this metal and where it is found. (See Carpenter's "North America" and Carpenter's "South America," also Carpenter's "How the World is Housed.")

9. Name some of the animals, birds, and insects we have seen.

10. What are the chief methods of trading? Describe a native market. Trace an ivory tusk from the wilds to the river, and via Boma to Antwerp and New York.

11. Describe the great African forest. With what other tropical forest may it be compared?

XXXVIII. TANGANYIKA TERRITORY

WE have finished our travels in the Belgian Congo. We have come from Kinshasa north to Stanley Falls, and by river and rail to Albertville on Lake Tanganyika. There is a little steamer lying at the wharves, and we take passage on it for Kigoma, a port of Tanganyika Territory on the opposite side of the lake some miles farther north.

As we steam up Lake Tanganyika we are surprised at its beauty. The waters are green, and walled by blue hills upon which cattle are feeding. It is more like a mighty river than a lake. From shore to shore it is only from twenty to forty miles wide, and yet it is four hundred and fifty miles long. It is larger than Lake Erie, and in most places more than three times as deep as Lake Superior. With the exception of Lake Baikal, Siberia, it is the deepest fresh-

water lake on the globe, soundings of more than four thousand feet having been made in some of its waters. The shores on the Congo side are mountainous, giving excellent pastures, and many fine cattle are raised in the country hard by.

As we come near Kigoma, we see that the shores of Tanganyika Territory are lower than those of the Congo. Here the lake is more shallow, and there are huge hippopotamuses swimming about, only their backs and noses showing out of the water. We enter a beautiful bay and come to anchor not far from the railroad which crosses the country to the Indian Ocean. The distance is seven hundred and eighty miles, or about as far as from New York to Cincinnati.

Before starting east, we ride in jinrikishas to the old native town of Ujiji, situated on the lake four miles away. This was the place where Stanley found Livingstone, and here during the World War the last German gunboat on Lake Tanganyika was sunk by the Belgians. Ujiji, formerly a great trading center in slaves and ivory, now has a population of twenty-five thousand, many of whom are Arabs. The Arabs, who were for so long the chief traders of interior Africa, sent caravans of porters from here to the ports opposite the island of Zanzibar. All of the freight was carried on the heads and shoulders of men, and it took forty men to carry one ton of goods. The freight charge from Lake Tanganyika to the Indian Ocean was about two hundred and fifty dollars per ton. All such wares now by go railway, and a few cents will do as much as a dollar did then.

Taking the train, we are soon on our way across country. The road is a narrow-gauge, and the cars are small, but it is far easier than going on foot through the wilds. We see some big game, and stop now and then to visit a town or make an excursion back into the interior.

The Tanganyika warrior has half of his body covered with copper wire, which the natives steal from the telegraph lines.

But let us take a look at Tanganyika Territory. This country was formerly known as German East Africa. It belonged to Germany until the World War, when the English and Belgian troops conquered the Germans and their large native army, and since then Great Britain has taken over the administration of the colony under the League of Nations. The government officials are now all British, and the country is policed by the King's African Rifles.

Tanganyika Territory is now one of the most important colonies on the continent. It is bounded on the north by Kenya, Lake Victoria, and Uganda, on the west by the Belgian Congo and Lake Tanganyika, on the south by Rhodesia and Lake Nyasa and Mozambique, and on the east by the Indian Ocean. Altogether, it is almost four times as large as the United Kingdom, and more than twice as large as Germany.

Most of this region is not more than thirty-five hundred feet above the sea, and its nearness to the equator makes it too hot to be a fit home for white men. In this it is different from a great part of Kenya, to the north. The population numbers more than four million Africans and about five thousand whites. The natives, belonging mostly to the Bantu race, are more intelligent and more civilized than those of the Congo.

As we ride through the country on the railway we pass many little farms with herds of cattle and sheep watched by the natives. We often see villages surrounded by mud walls or stockades of posts, and sometimes by a moat outside the walls. Each village has a place in the center where the cattle are kept at night.

The huts are sometimes round and sometimes square; but they are all small and made of mud or wood, thatched with

leaves or grass. Many of the people keep their animals with them in their dwellings, goats, sheep, chickens, ducks, men, women, and children living together.

The natives dress according to the tribes to which they belong. Some have clothes of skins, some wear aprons of bark, and some have only a fringe of grass about their waists. All are fond of jewelry, and many wear large rings of copper, brass, or iron upon their necks, wrists, or legs. They have odd ways of dressing their hair, and nearly all wear a thick coat of grease on their bodies and heads.

Some of these people raise maize, sugar cane, tobacco, and manioc. Nearly every village has bananas growing about it, and some have little granaries where millet, corn, and other things are put to be kept from the animals. Many of the people have bees, and nearly every one has chickens.

The natives are good blacksmiths, smelting and hammering out spears, knives, bells, and rude axes and hoes. Some of the tribes between Lake Tanganyika and the Indian Ocean are traders. They make a regular business of carrying the native products to the railway and sending them across the country to exchange them for European goods, which are brought back and sold.

We stop some time at Tabora, two hundred and fifty miles from the lake. It is a large native city which was once the chief trading center of this part of Africa and will again become so in the future. It is the point from which the railway planned to connect this road with Lake Victoria will begin. That road will run north to Mwanza, a thriving port on the south shore. There is also a railway from the port of Tanga on the Indian Ocean to Arusha on the slopes of Mount Kilimanjaro. This is connected with the Uganda railway upon which we went inland from Mombasa. In

This building was erected by the Germans as their government house at Dar es Salaam. The British now rule the country.

addition to the railways, the country has many wide, well-kept roads, which were built by the Germans.

Going eastward, we find that the land is rich, and fitted for the raising of cattle and the growing of tobacco, coffee, sugar, and sisal hemp and cotton. We pass a number of experiment stations established by the Germans when Tanganyika was one of their colonies, and finally come to the port of Dar es Salaam, which was the capital of German East Africa. The city is now the seat of the British Government of the Territory.

Dar es Salaam is the most beautiful town we have seen since leaving Egypt. It lies on a deep bay on the shores of the Indian Ocean, and its wide streets are shaded by tropical trees and bordered with flowers. There are many stone

houses, the residences of the officials, and some large government buildings. There are hotels and clubs, tennis courts, and football fields. We ride about in automobiles, and find the roads excellent far out in the country.

Strolling down to the harbor, we watch the loading and unloading of great ocean vessels at anchor. The steamers are taking on ivory, rubber, coffee, and other native products for shipment to Europe, and discharging cotton goods from America and England, to be sent by railroad and caravan to the interior. As we watch, another steamer comes in from the south, and we notice that Dar es Salaam already has considerable trade.

Later, we visit the native quarter. About their waists the men wear strips of cotton which fall to their knees. Some wear long shirts, others gowns and turbans or caps. The women are dressed in bright-colored cottons; but all are bareheaded, barearmed, and barefooted.

We call upon the British governor of the colony and ask him questions about the parts of it we have not yet seen. He tells us that some of the best lands are at the north, and that there is a rich grazing country on the slopes of Mount Kilimanjaro, reached by the little railroad that runs in from the port of Tanga. The colony has four million cattle and more than six million sheep and goats.

Kilimanjaro lies on the northern border of Tanganyika Territory, halfway between Lake Victoria and the Indian Ocean. It is only a few miles south of the equator, but its top is so high that it is always covered with snow. The natives who live in the tropical lowlands, where snow never falls, cannot understand what the white peak means. It is said that there is a tradition that the mountain is capped with molten silver, and that if they could climb to the top they might bring back a store of that precious metal.

Kilimanjaro, Africa's highest mountain, rises almost 20,000 feet above sea level.

Kilimanjaro is one of the highest of the world's mountains. It ends in two peaks, one of which is almost four miles above the level of the Indian Ocean. The two peaks as viewed from a distance look like a saddle, the taller one, known as Kibo (kĕ′bō), rising far above the other. Each peak is a great crater, Kibo being six hundred feet deep and more than a mile in circumference.

The soil about these craters is composed of lava and rock, and farther down the mountain the lava can be plainly seen. The lower slopes are covered with a rich vegetation. The trees at the bottom are bound together with vines, forming a jungle in which many orchids and other air plants grow. Higher up, the forests are more open; there are groves and grasslands. Higher still, the vegetation grows scantier and scantier, until at last there is nothing but lava and snow.

The country about Kilimanjaro is well populated. The natives are dark brown in color. Many of them are Masai. They belong to the Bantu races, being divided into tribes, each having its own chief or sultan. They are more civilized than the natives we met on the Congo. In some tribes the older people wear clothes of white cotton and gay-colored calicoes. They are fond of jewelry, and the women wear heavy necklaces and anklets of copper or iron wire. The babies go naked, and little boys seldom wear more than an apron. These people cultivate the soil, having patches of grain and other products, surrounded by hedges. Some of their farms are irrigated from the streams which flow down the mountain.

The villages are composed of many little thatched huts which look like haystacks. Each house has its own little granary outside it, and nearly every family owns a patch of bananas.

Natives bring ivory tusks to Zanzibar from the interior.

XXXIX. ZANZIBAR

IT is a short ride by steamer from Dar es Salaam to the island of Zanzibar, which lies off the coast of Tanganyika Territory only twenty-five miles away. This island is governed by a sultan, but is under the protection of Great Britain, and the sultan must do as the British resident commissioner directs.

The sultan is an Arab. He is the descendant of chiefs who sailed from Arabia centuries ago and conquered a great part of eastern Africa. They once controlled all the coast lands from Cape Guardafui (gwär-dä-fwē′) to Mozambique (mō-zăm-bēk′), and their power was felt as far inland as Lake Tanganyika. They established their capital at Zanzibar, and engaged in extensive trade in slaves and ivory, which were brought across the country in caravans to Bagamoyo and thence by boat to Zanzibar, to be shipped to Europe and Asia. The slaves carried the ivory on their heads to the seacoast, and at Zanzibar both slaves and ivory were sold.

At the same time goods of many kinds were shipped to Zanzibar to be taken over to the mainland for trade with the natives. People from India, Arabia, and Europe settled here to engage in business, and therefrom grew up this city which is now the largest along the eastern coast of Africa and has one of the finest ports in Africa. It contains Hindu traders, Mohammedan Arabs, and many thousands of blacks who have come from the mainland of Africa to work and trade.

We can see Zanzibar long before we get to it. It is a low coral island about half the size of our state of Rhode Island, covered with green. Along the shores are coconut and mango trees, with the towers and minarets of Mohammedan mosques rising above them and with wooded hills

The crooked, winding streets of Zanzibar are too narrow for automobiles or carriages.

in the background. Nearer still, facing the harbor, are the great white buildings of the city, and also the palaces of the Sultan, an immense structure with verandas to each of its three stories and with many windows reaching to the floor.

We land and make our way on foot through the streets. They are too narrow for carriages or horses. Some are not more than four feet wide, and we are often crowded to the walls by porters carrying heavy loads on their backs or heads. The streets are crooked and we wind our way, passing through the strangest crowds we have yet seen. There are dark-faced men in long gowns wearing turbans, Parsee merchants from India, with their coats buttoned up to their necks and hats like inverted coal scuttles; there are black coolie girls with gold buttons in their noses, and Hindu girls loaded with jewelry. There are many half-naked natives from the mainland, doing all sorts of work, and the black soldiers of the sultan in uniform. We meet also Englishmen and Germans, Frenchmen and Italians, and now and then an American.

Later on, we go to the mosques to watch the Mohammedans at their prayers, and then visit the Hindu temples and the English churches. On Wednesday afternoon we hear the sultan's band play, and accompanied by the American consul are received by him and taken over his palaces.

During our stay we take rides through the island over roads lined with coconut palms. Zanzibar, though not large, is so fertile that it looks like a garden. It produces tropical fruits, coconuts in large quantities, and so many clove trees that it may be called the most spicy of all the world's islands. It is estimated that four fifths of all the cloves used are grown in Zanzibar, such exports sometimes amounting to about thirty million pounds in one year.

Zanzibar raises most of the world's cloves. The natives pick them from the trees.

Clove trees are set out in orchards and cultivated. They grow to be thirty or forty feet high, and begin to bear at about six years. The blossoms, which are bright red in color, form the cloves of commerce. They are picked when full blown, and are cured by smoke from slow wood fires. While smoking, they turn to the color of the cloves of our grocery stores. After drying they are packed up ready for shipment abroad. We are told that the bags of cloves which we see on the Zanzibar wharves are destined for the United States where they will be used as a spice and as a medicine. Perhaps we ourselves may eat some of the cloves in our pickles next year.

1. Trace on the map our trip from the Belgian Congo to Dar es Salaam. Across what lake did we go? Compare it with Lake Victoria; with Lake Erie. Name the chief towns through which we passed. Tell something about each of them.

2. By whom is Tanganyika Territory governed? To what country did it belong before the World War?

3. Bound Tanganyika Territory. Compare it with the United Kingdom. What is its climate? What peoples inhabit it? Why are there but few white people here?

4. Describe the natives and their customs as seen on our trip through the country. What are some of their occupations? What crops do they raise?

5. Take a trip through Dar es Salaam and tell what you see. Compare it with Nairobi, the capital of Kenya.

6. What are the chief exports of Tanganyika Territory? Where do they go? What goods do we send to the colony? Trace a strip of American cotton from the plants of our Southern states to the markets of Tabora or Dar es Salaam.

7. What high mountain is in this territory? Describe it. How does it compare with the other mountains of Africa? With the high mountains of the world? Name the highest mountain in Europe, Asia, South America, and North America.

8. Locate Zanzibar. How large is it? Describe its government. What is the chief religion? What islands under the American flag have the same religion? Locate them.

Street in a native village of Mozambique. The huts are of poles, roofed with thatch.

9. By what people was Zanzibar formerly controlled? In what trade did they engage?

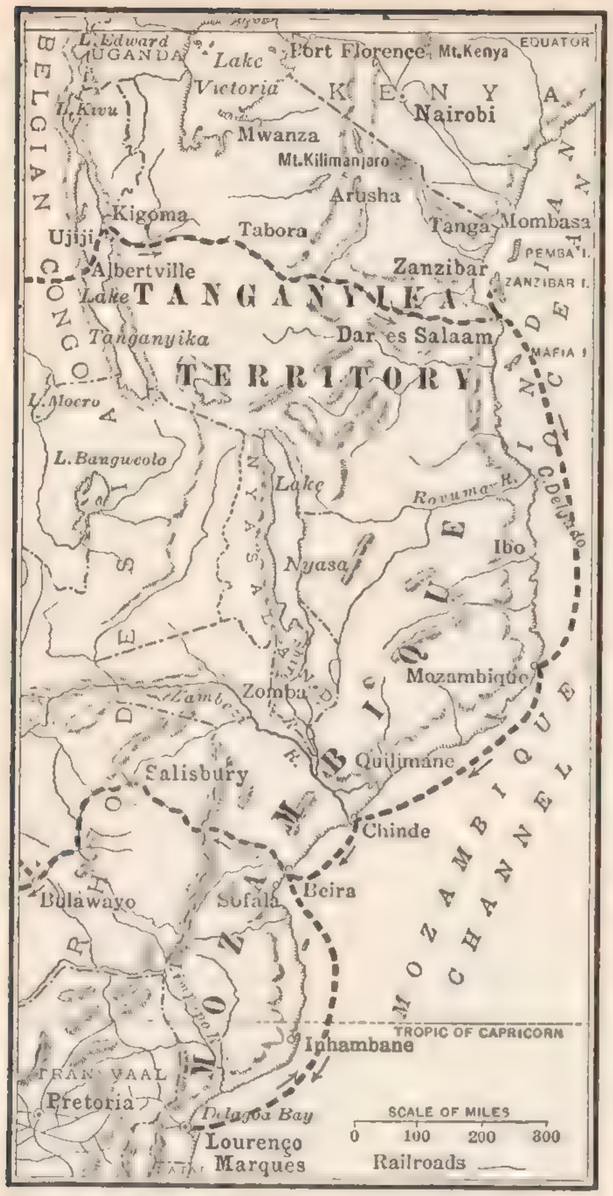
10. Take a trip through Zanzibar City and tell what you see.

11. Name the chief product of the island. For what is it used? Trace a shipment to England via the Cape of Good Hope.

XL. MOZAMBIQUE, OR PORTUGUESE EAST AFRICA

WE have left Zanzibar by steamer, and are now moving southward through the Indian Ocean along the coast of Portuguese East Africa, or, as the colonies are now called, Mozambique. The Portuguese possessions begin at Cape Delgado at the southern end of Tanganyika Territory, and extend southward along the coast beyond Delagoa Bay, where they adjoin Natal. They are bounded on the west and north by the Transvaal, Rhodesia, Nyasaland, and Tanganyika Territory, and on the east by the Indian Ocean. The total extent of the country is more than four hundred thousand square miles, equal in area to ten states the size of Tennessee, and larger than all of our Atlantic states from Florida to New York. The mighty Zambezi River cuts the country almost in half, and the Limpopo, or Crocodile River, flows through it not far from the southern boundary.

Mozambique consists chiefly of the low coastal plains and of the deltas of the Zambezi and other streams which flow into the Indian Ocean. There are several good ports, including the harbor of Mozambique, Chinde, Beira, and Lourenço Marques, the last being the most important and the chief center of government. From Beira and Lourenço Marques are trunk lines extending westward across the territory and connecting it with the great railway system of South Africa.



Our route through Tanganyika Territory and Mozambique.

In addition to Mozambique, the Portuguese have the province of Angola lying south of the Belgian Congo on the west coast of the continent, and also the Cape Verde Islands and a small possession on the Gulf of Guinea. Angola extends more than one thousand miles along the western coast of the continent, and is even larger than Mozambique, where we are now. That country is somewhat like the Belgian Congo, but the land is unhealthful and of small value in comparison with some of the African possessions of France and Great Britain.

One might think that the best part of Africa ought to belong to the Portuguese, for it is largely due to them that the continent first became known to civilized man. At

about the time America was discovered the only parts of Africa which had been visited by Europeans were along the Mediterranean Sea. It is true that Herodotus had told a story of a Phoenician ship which had sailed about the continent, but this story was not believed, and no one really knew anything about the great size of Africa or that India could be reached by going around it.

Then, when Columbus started out from Spain to find a new way to India by going westward, some Portuguese navigators sailed southward to see if there might be a new route to India that way. They had heard this story of Herodotus, and one of their sea captains, who had journeyed down the east coast to a point not far from where we are now, had brought back a tradition that the land ended at some distance farther south. The Portuguese did not know how far south that might be, and they were not sure there was a passage around the continent, but they decided to find out. Shortly before Columbus made his first voyage, a Portuguese named Cam had reached the mouth of the Congo, and in 1487 another Portuguese, Bartholomew Dias, sailed to the southern end of Africa and named it the "Cape of Storms." This name was afterward changed to the Cape of Good Hope. That was five years before Columbus discovered America.

The next great voyage of the Portuguese was made five years after the discovery of the New World. It was that of Vasco da Gama, who, in 1497, rounded the Cape of Good Hope and sailed on to India. His trip created much excitement among navigators all over the world, and his route became the chief ocean highway to Asia. It continued as such until the Suez Canal was constructed, and ships were able to reach India by passing through the Mediterranean Sea into the Indian Ocean.

The Portuguese made many voyages and built up a great trade with India. They established colonies at the Cape, at Sofala, a port on the Indian Ocean then noted for its ivory and gold exports, at Mozambique, and at other places on the east and west coasts of the continent. Indeed, for a long time they claimed that most of Africa belonged to them. They warred with the Arabs, who were doing business along the Indian Ocean, and extended their conquests to Zanzibar, Mombasa, and almost to the Gulf of Suez, so that the Indian Ocean was sometimes spoken of as the great Portuguese lake.

Later on the Dutch and English built up their trade with India and Asia. The Dutch drove the Portuguese away from the Cape of Good Hope; and they in turn were conquered by the English, so that that country, and the east coast almost as far north as Delagoa Bay, now belongs to Great Britain.

Steaming out of Zanzibar harbor, we are soon again in sight of the low, densely wooded shores of Africa. We pass Cape Delgado, at the mouth of the Rovuma River, and a little later are plowing along through the Mozambique Channel, which separates the continent from the great island of Madagascar. The channel is more than two hundred miles wide, hence we have no view of the Madagascar coast.

Our first stop is at Mozambique, the old capital of Portuguese East Africa. It is about two days by steamer from Zanzibar, and our log registers five hundred and sixty-six miles. The town is on a little island so close to the continent that canoes by scores are always plying back and forth carrying food and the products of the mainland to the port. The island is covered with houses, and as soon as we land we start out for a walk through the streets. The change

Little Zulus at dinner. The kettle contains corn meal mush.

is delightful after our long travels through the poor villages of the interior. The streets are macadamized, and the sidewalks are paved with cement. The houses are made of stone covered with plaster, and are painted red, pink, blue, yellow, or lavender. Many of the buildings have street lamps bracketed to them. There are little parks here and there, and outside the town is an old fortress reached by a long avenue of wild fig trees.

We call upon the governor, spend a little time shopping with the natives in the markets, and then take a ride in a machilla over the island. The machilla is a reclining chair with a canvas top. It is slung to a pole and borne by two natives, one of whom trots in front and the other behind, carrying the ends of the pole on their shoulders. Our trip is short; Mozambique Island is only a quarter of a mile wide and not more than a mile long, so that it takes but little time to explore it.

At Beira, passengers are landed from steamers by being swung in huge baskets into the boat that takes them ashore.

Now we are again on the steamer and have sailed almost five hundred miles southward along the African coast. We have come from Mozambique to Chinde, near the mouth of the Zambezi, and are about to land at Beira, where there is a railroad extending far into the interior.

How rough the sea is! We had a storm last night, and the ship is still rolling. We are at anchor outside the port, but the waves are high, and we look in despair at the boats which are rising and falling on the waters beneath. We do not see how we shall ever be able to get down to them to be taken ashore.

What is that great basket which the sailors have placed on the deck? They have fastened it to a derrick so that it can be raised and lowered to the boats. The basket is as big around as a hogshead, and about ten feet in height. It has a door in the side through which we enter. It will carry three boys at one time if they stand close together. Now the door is closed; and a moment later we feel ourselves rising and then falling, and almost before we know it we are able to step out into the boat far below.

We land and ride through the little town on a street car cab, pushed from behind by half-naked blacks on the trot. We visit the railroad station, shop at the stores and in the market, and then have dinner at the hotel. We are told that the country back of the coast has excellent hunting. Buffaloes, wildebeest, hartebeest, and quagga roam over the land in vast herds, and elephants and lions are occasionally found. The country is unhealthful for Europeans and we do not make a long stay.

Our next port is Lourenço Marques, the most important of the Portuguese towns, situated on Delagoa Bay, almost five hundred miles south. It has one of the best harbors of the southern hemisphere. Delagoa Bay is seventy-eight

miles long and twenty miles wide, and there is an inner harbor which is seven miles long and one mile wide, with depth enough for large steamers. This harbor is especially important, as it is one of the chief ports for the gold fields of the Transvaal and the farm lands of several states of British South Africa, which are reached by a railway running west to Pretoria. Lourenço Marques is also the seat of government of the Portuguese possessions.

We are several hours steaming through the bay before we pass Reuben Point into the inner harbor and anchor close to the shore. Our baggage is taken to the customhouse pier, which has great cranes for loading and unloading cargo. It is quickly examined, and a few moments later we are strolling through the chief business part of the city.

The town seems more thrifty than any we have seen since we left Egypt. On the streets are many Europeans dressed in white clothes and straw hats. There are dark-faced Portuguese, and English, French, Germans, and Americans who have landed here on their way to and from the interior of South Africa, and there are East Indians, who to a large extent do the retail business of the place. There are also natives in every state of dress and undress.

We take jinrikishas and ride through the streets, and afterwards go in taxicabs for a trip out into the country. There is also an electric street car line from the wharves to the railway station, so that we have no trouble in getting about. The city is a beautiful one. It lies right on the sea, and Polana Beach, with its background of red cliffs, has one of the finest stretches of sand on the African coast. The place has become a seaside resort for South Africa, and there are large hotels overlooking the ocean.

We enjoy our rides through the town. The streets are lined with bright-colored houses. There are red, blue,

yellow, and pink buildings in the same block, and the park is surrounded by houses of all colors of the rainbow. We visit the Botanical Garden and motor out to Reuben Point, and then go to the public buildings to have a chat with the governor-general about the country and its people.

He tells us that Mozambique has about four hundred thousand square miles and a population of more than three millions. The country is divided into districts, beginning at the north; namely, Mozambique, Zambezi, and Lourenço Marques. It is largely ruled by companies which have charters from the Portuguese government to develop it. Almost the whole of it is unhealthful, consequently it has few Europeans.

The natives are chiefly of the Bantu race. They are of many tribes, mostly barbarous. In some places slavery still exists, and cannibalism is practiced. Each tribe has its peculiar dress, although all go more or less naked. Along the Shire (shē′rā) River the women make holes in their lower lips in which they wear ornaments of various kinds. Sometimes they have long nails of brass or ivory thrust through these holes, and sometimes they stretch the holes so that a ring as big as a napkin ring will fit into it. These people live in villages; they are not unlike the tribes we saw on the Congo.

We find natives in Lourenço Marques and see many during our trips through the country near by. The men often have little more than strings around their waists, to which are tied bunches of tails or skins in front and behind. The women wear a cloth about the body from the waist to the knees, and some have a second cloth over their shoulders. They have necklaces of beads, and bracelets and anklets of twisted iron wire. Such wire often covers the arm from the wrist to the elbow, and the leg from the ankle to the

A street in Pretoria. This city is the seat of government of the Union of South Africa.

knee. They wear band necklaces, and sometimes bead work on ribbons about their heads. They carry their babies tied to their backs, the little ones bobbing up and down as they move along the road or dig in the fields.

Here as in other wild parts of Africa the women do the hard work. The men are loafers, and he who can afford to buy several wives expects to live on their earnings. His only duty is to furnish his wives' clothing.

1. To what European country does Mozambique belong? Describe its surface and size.

2. Tell what you can about the Portuguese and their explorations of the African continent. Trace on the map some of the journeys they made. What was their object in these voyages? Is the route they discovered as important now as it was then? Why?

3. What are the principal seaports? Tell what you can about them. Locate Beira on the map. How do we land from the steamer?

4. What methods of transportation do we find in Lourenço Marques? Which one of them reminds us of our travels in Japan?

XLI. BRITISH SOUTH AFRICA

WE have returned to Beira by sea and have gone westward on the railroad through the low swampy lands of Mozambique to Salisbury, the capital of Southern Rhodesia. We are now on what might be called the northern frontier of British South Africa, a vast territory that comprises some of the most valuable lands of the continent. The British own not only Rhodesia, which extends from here northward to Lake Tanganyika and the Belgian Congo, but also all of the country from the Zambezi to the Cape of Good Hope, and, with the exception of Portuguese Africa, all of the land between the Indian Ocean and the Atlantic Ocean. Their territories in the southern

part of the continent, including Southwest Africa, which came to them from the Germans at the close of the World War, comprise more than one million square miles, or almost one hundred times as much as the British Isles, where the parent government is. It is about one third as large as the whole United States.

This vast country includes the Union of South Africa, which alone is more than ten times the size of the state of

Pennsylvania; Nyasaland, bigger than Indiana; Basutoland, almost as large as Maryland; Bechuanaland, larger than Texas; Swaziland, half again as large as Connecticut; Rhodesia, which is fourteen times the size of South Carolina; and Southwest Africa, which would make nine states as big as Maine with some land to spare.

Nyasaland is much like Tanganyika Territory in its people and resources. Basutoland is a high, well-watered plateau with a fine climate and some of the best grain-raising soil of South Africa. Its people are largely cattle raisers. Bechuanaland is dryer than Basutoland, but has hundreds of thousands of cattle, sheep, and goats. Rhodesia is rich in farms and mines, and Southwest Africa, although largely a desert, will support vast numbers of cattle and sheep, and has valuable mineral resources, including tin, copper, and diamonds.

South Africa is much different from the countries through which we have been traveling. It is so far below the equator and so high above the sea that its climate is well fitted to be the home of white men, and the result is that it is fast being populated by the white race.

The white settlements began at Cape Town, and along the southeastern coast. The first to come were the Portuguese and the Dutch, and after them the English. The English and Dutch gradually pushed their way northward. They found much of the land good for sheep and cattle, and in other places they raised fruit, wheat, tobacco, and grain.

Then the discovery of diamonds near the Orange River brought immigrants from all parts of the world. The rich gold fields farther north brought more, and the agricultural lands were soon settled by farmers. Then cities and towns grew up, railroads were built, and we now have in this part

The huts of the Kaffirs look like huge beehives.

of Africa a civilized country much like our own. The towns are lighted by electricity, we can travel over a great part of the territory in motor cars, and can fly here and there in airplanes. The cities have excellent libraries and newspapers. There are schools almost everywhere in the settled regions, and there is nearly everything we consider necessary to civilization.

As time has gone on the British have gradually taken over the government of the whole country. They have conquered the native tribes and brought them under subjection. In 1902 they were victorious in a war with the Boers, the descendants of immigrants from Holland who had conquered several rich colonies, and settled them, so that now the whole territory may be considered a part of the great British Empire, although it comprises a number

of colonies which to a large extent govern themselves. We shall see how this is done as we go on with our travels.

When the Europeans first came to South Africa they found three races of natives. Two were small, weak, and of a low grade of civilization; the other was strong and warlike, with kraals or villages of huts shaped like beehives, and herds of cattle and sheep. The two weak races are known as Bushmen and Hottentots; the strong one as the Kaffir race.

The Kaffirs are very numerous in many parts of South Africa. They are Bantus, somewhat like the best of the natives of the Congo valley. They have brown skin, thick lips, and woolly hair. They belong to many tribes, such as the Zulus, the Matabeles, and others. Most of the tribes are thriving, notwithstanding the settlement of the country by the whites. Some Kaffirs have lands of their own with farms and grazing territories; others work in the mines, in the cities, or on the farms.

The two weak races might be ranked with the dwarfs of Africa. The Bushmen are somewhat similar to the pygmies we saw in the great Congo forest. Their height is rarely more than four feet, and their yellow faces have features somewhat like the Chinese. Their language is a mixture of clicks and grunts, being often compared to the clucking of a turkey. They live in low huts made of reeds, in caves, or in holes in the rocks. They rely for food upon roots and wild fruits, and on what they can steal or kill. They are fond of caterpillars, locusts, and grasshoppers, and eat even ants and spiders. The Bushmen live chiefly in the Kalahari Desert and in the western parts of South Africa.

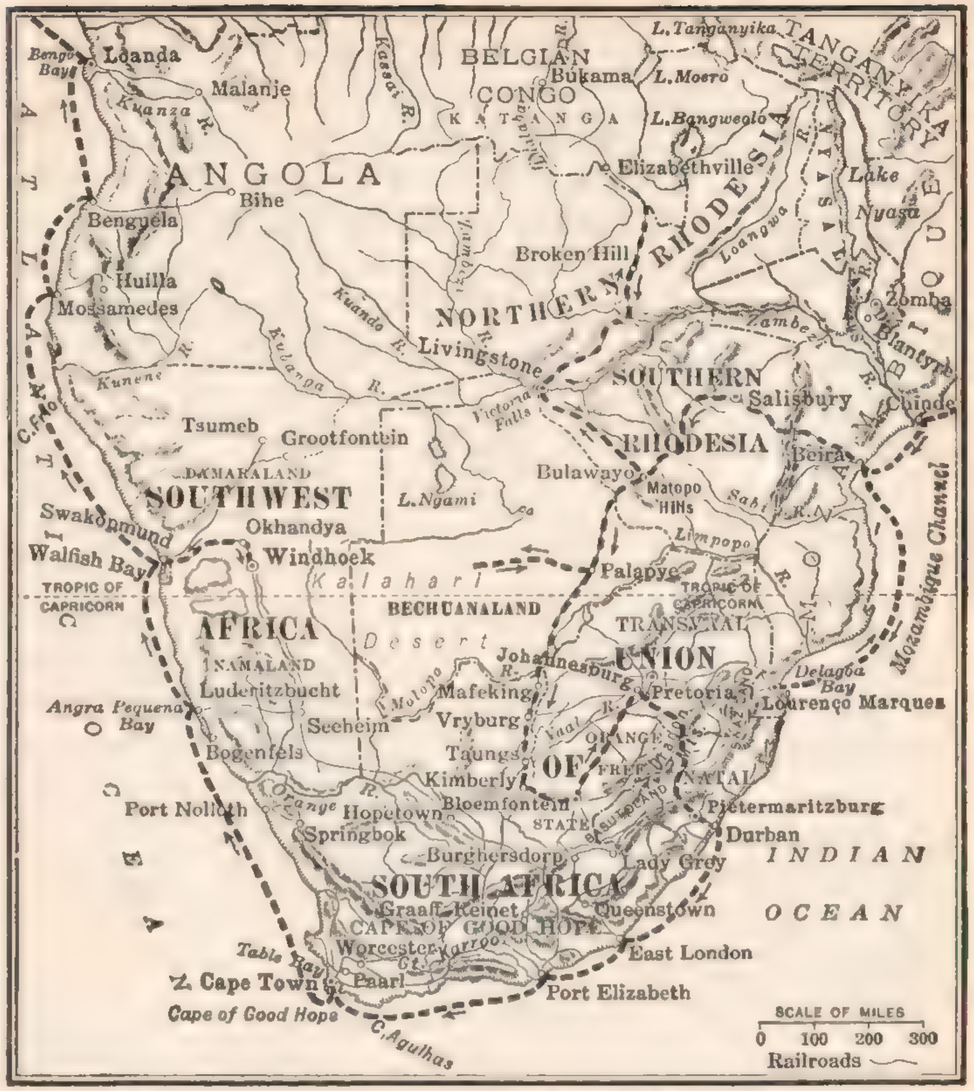
The Hottentots are only a little larger than the Bushmen; and they have the same yellowish skin, high cheekbones, slant eyes, and flat noses. Their coarse hair is grown in

patches over the head. They are a little more intelligent than the Bushmen, and in times past they had vast herds of cattle and fat-tailed sheep. They then lived in tents or huts made of branches of trees covered with mats, dressing in sheepskins and smearing their bodies with grease. Today they are largely servants and farm laborers, and are said to be about the laziest people under the sun. They are noted for their immorality and drunkenness, and are fast dying out.

XLII. RHODESIA

FOR the next few weeks we shall be traveling in Rhodesia. The country can make more than ten states as large as Ohio, and it has several thousand miles of railway now running through it. It is divided into Northern Rhodesia, the wild land north of the Zambezi River, bounded by Portuguese West Africa, the Belgian Congo, Tanganyika Territory, Nyasaland, and Mozambique, and Southern Rhodesia, which lies south of that river, adjoining the territories of the Union of South Africa, with Mozambique on the east and Southwest Africa on the west. Northern Rhodesia is by far the larger, but Southern Rhodesia has more land fitted to be the home of white men.

Salisbury is the capital of Southern Rhodesia. We have been all day and all night on the train in coming to it from the Indian Ocean. The first part of our trip was across Mozambique. There the land is low and unhealthful. We rode for hours through the swamps, and saw hippopotamuses and crocodiles from the bridges over the rivers. At one time we passed through a swarm of locusts. There were so many that those crushed by the locomotives greased the



Route of our travels through British South Africa.

steel rails, and the train was almost stopped because the wheels flew round without moving us onward. Our car windows were screened to keep out the mosquitoes.

As we proceeded westward and entered Southern Rhodesia, the land rose and we reached the great plateau which forms the most of South Africa. We passed through dense

forests, and finally came out upon a high rolling prairie covered with grass. This is the nature of a large part of Rhodesia, and its highlands will furnish excellent farms. We saw pioneer settlements on our way here, and also many mud villages with round huts, the homes of the natives.

Salisbury is a city of white people. It is not unlike a town of five or ten thousand in the western part of the United States. Its buildings are chiefly stone and brick, with roofs of galvanized iron. Most of the houses are bungalows, with wide porches and low, overhanging roofs. Every home has its garden, and the front yards have tropical plants as well as the roses and flowers of our zone. The city is almost one thousand miles from the equator. It is about as high above the sea as Denver, and the climate is fine.

The streets are wide and well-paved, and we ride about in automobiles and jinrikishas. The latter are hauled by men as black as our boots. The charge is three shillings an hour.

During our stay we visit the schools. They are much like our own. They have playgrounds about them, and there are cricket and football fields near by. Salisbury is interested in athletics. It has golf links and tennis courts, and a fine swimming pool. There are also schools for the natives here and in other parts of Rhodesia.

One afternoon we call at the public offices to learn how Rhodesia is governed. This vast region was once occupied by warring tribes, the worst of which were the Matabeles, a horde of savages who fought with the other natives and devastated their lands. The Boers were about to take possession of the country, and there was danger also from the Germans on the north, when Cecil J. Rhodes, a British explorer, claimed the territory for Great Britain, and with five hundred men marched in and conquered it. He made his way through the wilds to Fort Salisbury, situated where

we are now, and on the twelfth of September, 1890, added this extensive region to the British Empire. Under Rhodes the British South Africa Company was formed to govern Rhodesia. This company has a limited ownership of the territory. It has a royal charter from the King of England, although there is a legislative council, largely elected by the voters of the colony. The council makes the laws, so the people practically govern themselves.

During the World War Rhodesia sent regiments of soldiers to fight the Germans in what is now Tanganyika Territory, and it is estimated that five men out of every hundred in the colony lost their lives.

The officials tell us that Southern Rhodesia has high plains where Europeans can live, and that forty or fifty thousand immigrants have already settled there. They say in addition to these there are about eight hundred thousand negroes. The negroes live in villages. They are divided into tribes and some of them have been given reservations such as we gave to our Indians in early days.

At present the chief business of Southern Rhodesia is stock raising and mining. Both natives and whites have stock farms, and altogether there are two or three million cattle, sheep, and goats in the colony. Fruit orchards are being planted, and oranges are shipped from here to England for sale.

The country is rich in minerals. Its gold output amounts to millions of dollars a year, and silver and copper are being produced. The country contains also iron, coal, nickel, and other metals, and a few diamonds as well.

Leaving Salisbury, we spend a day and a night on the train, going three hundred miles westward to Bulawayo, a station on the Cape-to-Cairo railway which has been planned to go from the Cape of Good Hope to the Medi-

A station on the Cape-to-Cairo Railroad.

terranean Sea. The line has already been pushed from Cape Town as far north as the distance between New York and the Great Salt Lake. There is a continuous steel track from Cape Town to Bulawayo. This is thirteen hundred miles long, and the railway goes north of Bulawayo almost thirteen hundred miles farther, crossing Northern Rhodesia, and reaching Bukama on the Lualaba, or upper Congo River. At Bukama one can go by steamboat on to Kabola, and then eastward by rail, as we did, to Albertville on Lake Tanganyika. He can go to the head of that lake on the same steamer, and thence by a succession of lakes, with comparatively short land trips, to the White Nile. Here steamboats will take him one thousand miles farther north to Khartum, from where there is transportation by river and rail to Cairo, and Alexandria on the Mediterranean Sea.

Bulawayo is now the principal station in Southern Rhodesia. The town is surrounded by a rich farming country. There are gold mines not far away, and near by is a governmental farm containing more than one hundred thousand acres, which formerly belonged to Cecil J. Rhodes. Bulawayo is rapidly growing. It is larger than Salisbury, but of much the same character; and we enjoy being again with people who speak our own language, and with stores and hotels that can supply us with all that we need.

The first plan of a steam route across Africa from north to south was originated by Cecil J. Rhodes, who did so much for the development of this part of the African continent. Rhodesia was named after him, and he has a bronze statue here in Bulawayo.

The region Rhodes opened up was one of vast wealth, and he died leaving a fortune, a part of which he placed in trust, so that its income is devoted to keeping a certain number of British, American, and South African students at the fam-

The hut occupied by Cecil Rhodes still stands in Bulawayo.

ous university of Oxford in England. Rhodes believed that these boys of different nations, being educated together, would become friends and work for peace between the several countries. In his will, he included in the list of students a certain number from Germany, but on the outbreak of the World War the trustees of the will canceled this provision, and in their place gave scholarships to several of the great colonies of South Africa and to provinces of western Canada. Some American students are now being educated this way at Oxford. Each receives for his expenses about seventeen hundred and fifty dollars per year.

Cecil Rhodes lived in Bulawayo during a part of his life, and he is buried in the Matopo Hills, about thirty miles away. During our stay we take motor cars and ride out

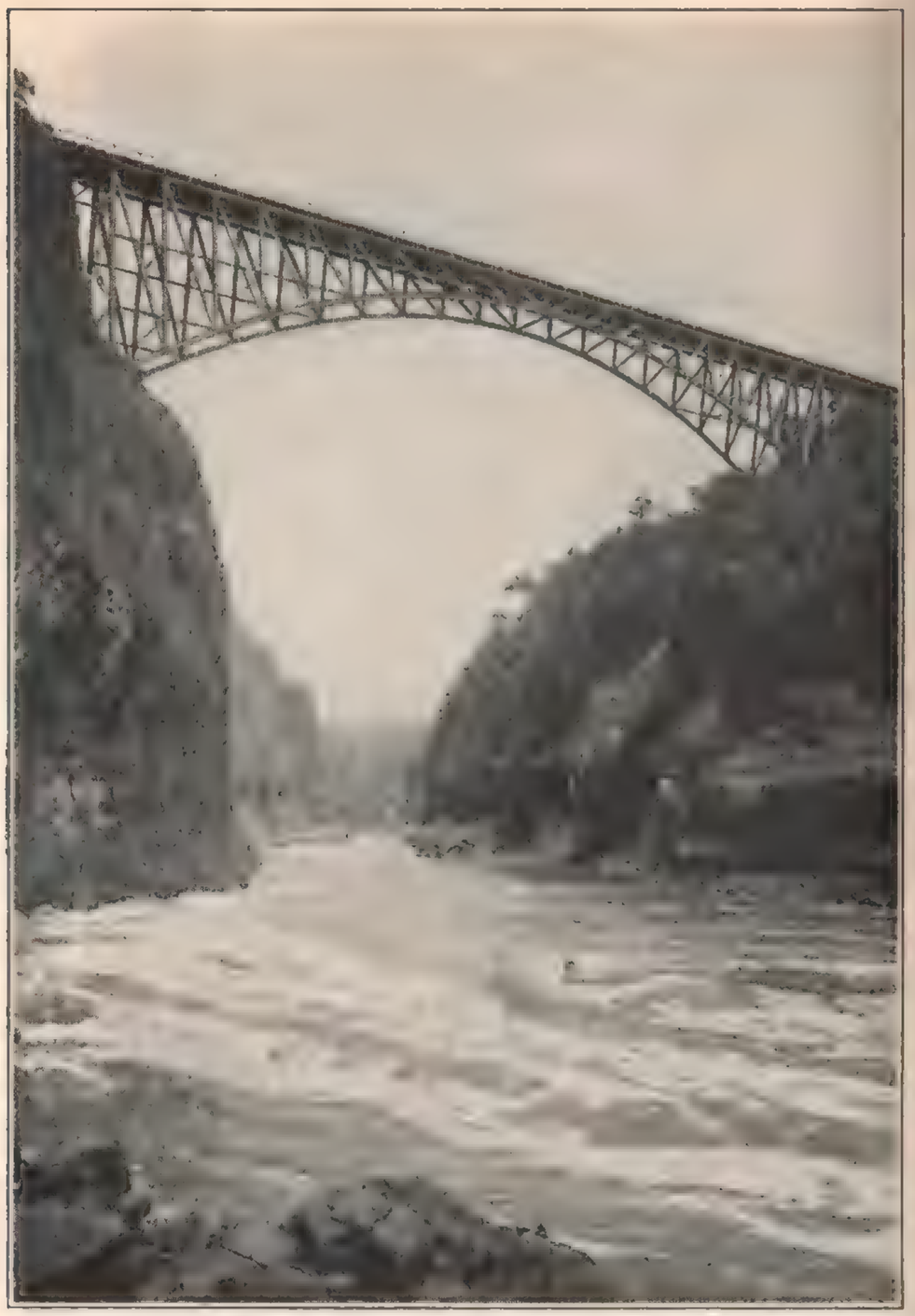
to visit his tomb. He lies not far from his farm in what might be called a great glacial garden. The Matopo Hills are a range of bare rocks which extend several hundred feet above the wide plains surrounding. The rocks have been scoured smooth by the mighty glaciers of the past, and upon them have been left boulders as big as haystacks, which stand out against the blue sky. On the very top of one of these rocky mountains, in a space about twenty feet square, with a half dozen of these mighty boulders standing as sentinels to guard it, the famous empire-builder lies buried. His grave has been cut out of the solid rock, and over it is a bronze plate three feet wide and six feet in length, bearing the simple inscription:

"Here lie the remains of Cecil John Rhodes."

XLIII. THE NIAGARA OF AFRICA

WE have come from Bulawayo, two hundred and eighty miles northward, and are now at Victoria Falls, where the great volume of the Zambezi River plunges straight over the cliffs into a gorge four hundred feet deep. We could hear the thunder of the waters when we were ten miles from the station, and the five mighty columns of mist made by the spray were visible for an hour before the noise of the waters fell on our ears.

The Victoria Falls have been compared to Niagara, and as we travel around them we can hardly judge which is the more wonderful. The basins of the Zambezi and the St. Lawrence are of about the same size, but the fall of the St. Lawrence is by far the less. The waters of Niagara begin to gather in Lake Superior, six hundred feet above the Atlantic, and make one third of their drop at the falls.



The bridge over the Zambezi River near Victoria Falls is a wonderful feat of engineering. It is on the route of the Cape-to-Cairo Railway.

The Zambezi has its source a mile above the sea, and it has already descended two thousand feet in its course of eight hundred miles before it makes its mighty plunge into this basaltic gorge. The falls of the Zambezi are twice as broad and more than twice as high as Niagara, and their surroundings are much more interesting. Niagara is being harnessed by electricity, and huge ugly factories rise up to disturb the view. The thousands of tourists who visit there also detract from the beauties of Nature. Victoria Falls are in the heart of a wilderness. The neighboring forest is filled with monkeys, baboons, antelopes, and other wild game. Birds of strange plumage fly through the trees, and scores of hippopotamuses swim in the river some distance above where the water pours down.

Our first view of the falls is from the railroad bridge which crosses the gorge through which the mighty river flows after its drop. This bridge is one of the highest and grandest in the world. It is four hundred feet above the water, and jumps from rock to rock in one span of five hundred and fifty feet. As the traveler crosses it on his way from the Cape to Cairo, the spray from the falls drops down on the cars, and the thunder of the train is lost in the thunder of the waters. Standing on the bridge, we can see the flood of the Zambezi boiling and seething below us. The waters are yellow, and look like a vat of steaming molasses. On each side are great palms, and orchids hang down from the baobabs and other tropical trees.

Leaving the bridge, we make our way through the rain forest, a jungle of woods where day and night, the year through, the rain always falls. The rain does not come from the heavens. It is the mist sent up by the river, and is greater or less as the Zambezi is high or low. We catch sight of a monkey on the edge of the forest, and, going onward,

reach a place below the falls where the great stream bursts into view. It is dashing over the rocks, falling hundreds of feet, and making a noise like a cannonade of artillery. Here the mist is so dense we can see only half the distance across the river. The falls are a mile wide, and we can just catch sight of Livingstone Island, which lies in their center.

Now the sun shines through the spray. There are rainbows above and below us. There, three hundred feet down from where we are standing is a great gorgeous arch of all colors commingled. It seems to rise out of the rocks, and we can see its apparent foundations. We remember the bags of fairy gold which are said to lie at the two ends of the rainbow, and wish we could crawl down and bring them away.

We next visit the Devil's Cascade on the other side of the falls, frightening the monkeys and strange birds as we walk through the park, and then go up the Zambezi and take a canoe for Livingstone Island. The trip is a dangerous one, and can be made only when the water is low. Livingstone Island lies right in the center of the falls, and if our canoes should be thrown a bit to the right or the left we might be hurled over the cataract.

About a mile above the falls the Zambezi is quiet, and at this spot we take our canoes. Each boat is paddled by four half-naked black men, ornamented with brass bracelets on their arms, and coils of brass wire about their legs from the knee to the calf. We move out into the stream, seeing little droves of hippopotamuses swimming about near the shores. They look like rocks, and it is not till they raise their black heads that we know what they are. Our boatmen are afraid of them, and row for midstream. There they stop paddling, and we are whirled down to the island. Here we wade through the low pools in the rocks until at last

Victoria Falls, the Niagara of Africa. Livingstone Island is in the center of the falls.

we are right in the midst of the falls, hanging, as it were, over the vast pit into which the Zambezi is dropping. All about us, above and below, is a mist so thick that we can see the falls only when the wind blows it away.

The mist rises to our feet and extends on above us like a great geyser, and then drops back as rain. Now the mist breaks, and we can look down into what seems a bottomless pit half filled with steam. At our right and our left is a cataract half a mile wide, almost as great as Niagara, dropping with thunder into the abyss. The scenes change every moment, and we are appalled by their grandeur.

As we listen to the thunder of the Zambezi, we wonder if the time may come when it will be harnessed by electricity and made to work for man as Niagara is now doing. We speak of this to our guides, and are told that plans have been made to carry the waters through pipes so that they will fall upon turbine wheels connected with dynamos by which electricity may be generated for the gold and diamond mines hundreds of miles away. The plan is to build great towers of steel which will carry the current on wires of aluminum and copper to operate the mines, the railway, and other industrial enterprises. This would be very costly on account of the great distance, and at present there is no use for the power in these wilds.

The falls might supply power for the navigation of the Zambezi, and they could light and heat many of the new towns which will some day spring up in this part of Africa.

Indeed, as we have seen in our travels, this continent is one of great water power, as is natural for a high plateau which in so many places drops almost abruptly to the sea. The Congo River between Stanley Pool and Matadi could furnish enormous power. We have seen the great rapids at the source of the Nile, which it is planned to harness by

electricity, and other great water powers might be developed at the cataracts of the Nile between Khartum and the Assuan dam. The Blue Nile and its branches in Abyssinia offer water power possibilities, and so do the Niger and other great rivers. All of this water power may some day be developed.

1. By what great nation is most of the country south of the Belgian Congo and Tanganyika Territory controlled? Name the principal provinces. What colonies comprise the South African Union?

2. How does South Africa differ from Central Africa in climate and in resources? Tell what you can about the natives.

3. What part of British South Africa was first settled? By what European peoples? What minerals usually found in a jewelry store aided in the development of the country?

4. After what famous pioneer and empire builder was Rhodesia named? Why? Visit his tomb and describe it. What great transportation route did he plan? Describe the scholarships he established at Oxford and tell why they were founded.

5. Compare Rhodesia in size with Tanganyika Territory; with the Belgian Congo; with the Union of South Africa.

6. Describe our trip from Beira through Rhodesia. Into what two sections is the country divided? Which is the more important? Why?

7. What is the capital of Southern Rhodesia? Locate Bulawayo. What famous transcontinental route is planned to run through it? Make an imaginary trip over this route from south to north, showing the principal places where you travel by steamer and rail.

8. Name some of the chief products of Rhodesia.

9. What mighty waterfall do we find in this territory? Compare it with Niagara. (See Carpenter's "North America.") Compare it with Iguassu Falls. (See Carpenter's "South America.") Tell the story of your visit to it. What animals do you see in the forests near by on your way to the falls?

10. Give some reasons why the Zambezi water power is not used. Name some other great water powers of Africa.

XLIV. FARMING IN SOUTH AFRICA

FROM Victoria Falls we go to the town of Livingstone, the capital of Northern Rhodesia, which is only a short distance away, and then take a trip on the Cape-to-Cairo railroad to the Broken Hill Mines, where there are great deposits of zinc and lead. We go to the borders of Northern Rhodesia and the Belgian Congo, from where we return by rail to Bulawayo. We rest a few days at Bulawayo, and then go southward to Bechuanaland and the provinces of the Union of South Africa, visiting the cities and towns and spending some time on the farms. We stop at Palapye, a native city of twenty thousand Kaffirs who have a large territory with cattle, sheep, and goats, and see many Kaffir villages by making excursions out from the railway. We find that most of the natives are farmers, and that the warfare of the past has been put down by the British. The people have cattle which they drive here and there to the best pastures. They have many patches of corn, and they store this when harvested in little granaries inside their villages.

The native villages are known as kraals. They range in size from twenty to one hundred or more mud huts each, and their corn fields are usually in the country near by. The fields are cultivated by the women, and the richest farmer is the man who has the most wives. Indeed, wives are bought and sold in many parts of Africa, and a man is rich or poor according to the number of wives he has to work for him. The price for a wife is a certain number of cattle, and a strong, fine-looking girl is worth several cows.

During our travels we make an excursion into the Kalahari Desert, about the outskirts of which are scattered tribes of Bushmen, and going on south ride on the railroad

South Africa, a land of farms and ranches, raises much grain and cattle. Here corn is stacked for export.

for miles through lands almost as dry as our Western plateau. There are but few streams, and nearly everywhere the soil is parched, brown, or bare. Now we pass through a region of stunted trees, and now through one of scraggy thorn bushes. The only green grass is along the borders of the few rivers, or where water can be got for irrigation. The grazing farms are large, as it takes much land for the stock, and the homes of the farmers are far apart.

This is so with most of South Africa, except in the mountains along the eastern coast, and in Natal, a province so green and beautiful that it is called the African Garden. There are also good lands in the other provinces of the South African Union, namely, the Orange Free State, the Transvaal, and the Cape of Good Hope, or Cape Colony. Next to Natal, in Basutoland, are the highest mountains on the continent south of the equator. Basutoland has wild ravines, wooded glens, and slopes covered with green pastures. Silvery waterfalls pour down its deep gorges,

and it is so beautiful that it is called the Switzerland of South Africa.

The country is fine also about Cape Town; but north of that the land rises into the great Karroo, a plateau almost as wild and dry as the Kalahari Desert, and higher still, on another terrace, there are tracts bleak and bare.

Some of these lands make excellent farms. Wheat, corn, barley, and oats are grown in large quantities. In the Transvaal there are cotton plantations and extensive farms devoted to tobacco. Cape Colony is noted as a wine-growing region, and fruits from that province and Natal are exported to Europe and the United States. The fruits here are ripe in January, February, and March, the summer of southern Africa, so that they command high prices in the northern markets, as it is then our winter.

Stock farming is one of the chief industries of South Africa. Cattle thrive in most of the states, and the high, dry climate is especially fitted for sheep, goats, and ostriches. The farmers are either Englishmen or Boers, the latter being the descendants of the Dutch settlers who came to South Africa long ago and took up farms about the Cape of Good Hope. When the English came, the Boers moved back into the Orange Free State and the Transvaal, and there built up a republic which lasted until the war between the British and the Boers, when that country came under the government of the British.

There were cattle and sheep here when the foreigners came, and the various Kaffir tribes still own stock. The Hottentots used oxen as pack and riding animals, and even trained them as war oxen to charge the enemy. They had ox races, riding the animals without saddles, and directing them by a rope or strip of hide fastened like bridle reins to a small stick pierced through the nose of the ox.

The descendants of these native cattle are still to be found, although many finer breeds have been brought in from Europe. The native cattle retain their wild character, and become dangerous when excited or disturbed in any way. The cows will give their milk only in the presence of a calf, which is brought out at milking time. Sometimes, it is said, a stuffed calf is kept on hand to be shown to the cow. She sees it and thereupon lets down her milk.

We find large sheep farms in Cape Colony and also in the other states. South Africa vies with Australia and Argentina as one of the best sheep lands upon earth, and its wool commands high prices in our markets. Sheep thrive in the rich pastures on the slopes of the mountains, and also upon the Karroo plateau, where the pasturage is so scanty that from three to twelve acres are required for one sheep.

The native sheep are brown, with heavy, flat tails of fat. Some such sheep are still owned by the natives, but the most common flocks are merinos and other fine breeds.

We visit several sheep farms. The animals are kept in large fields, and, strange to say, a flock often has one or more goats in it, the goats serving as sheep dogs. They are trained to lead the flock from field to field, and are especially valuable when it is necessary to drive the sheep from one part of the country to the other. The goats will even lead them across the streams. They swim in front, and the sheep follow; after they have taken one flock across in this way, some of them are so trained that they will then turn around, swim back, and a little later bring across another flock.

Goat raising is now common throughout these colonies. Angora goats have been imported from Asia Minor and elsewhere. They are grown for their wool, known as mohair, which is used to make ladies' dress goods and other fine cloths. There are now more goats than cattle in South

Africa. There are more than five million in Cape Colony alone, and the mohair shorn from them amounts to millions of pounds every year.

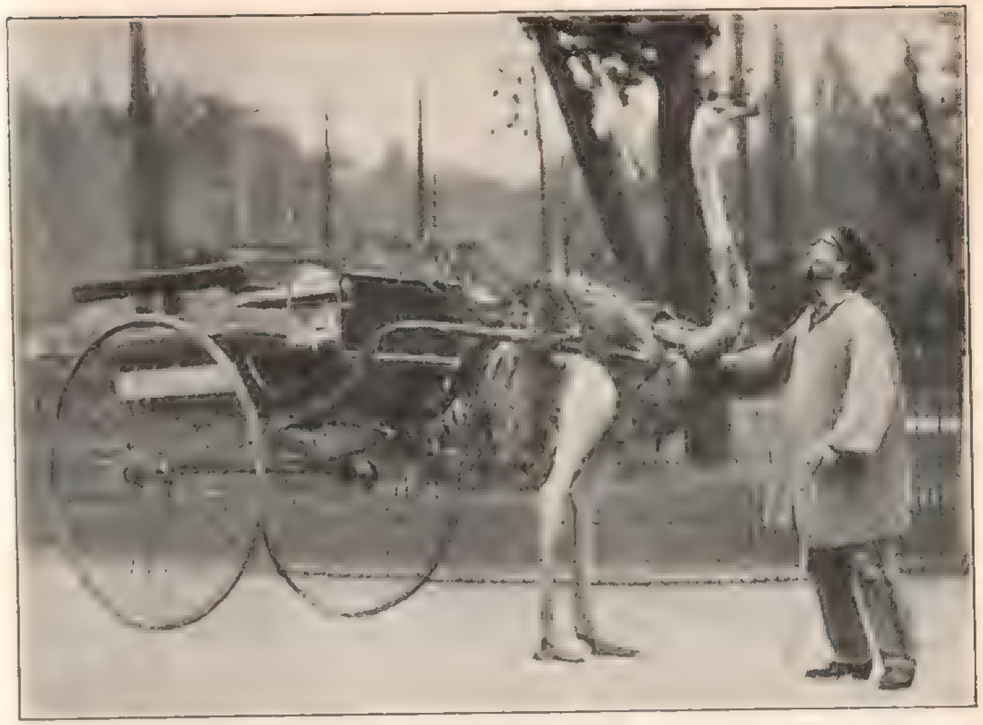
Many of the South African farms are far from the railroads. The wool and grain are brought to the trains in huge wagons, each drawn by many oxen. Often twenty or thirty of these beasts will be yoked to one wagon, which creaks and shrieks as it is dragged over the rough road. The oxen are usually driven by black-skinned Kaffirs, who to a large extent are the farm hands of this country.

We stop now and then to talk with the farmers. They tell us their troubles, which we find are quite as many as those of our farmers at home. In the frontier regions there are leopards, jackals, baboons, and lions which prey on the flocks; and some sections are infested by the terrible tsetse or poison fly, whose bite kills horses, oxen, sheep, and dogs. This fly is found in many parts of Africa, and destroys thousands of animals every year. It looks very much like a small bee, save that its body is marked by yellow bands.

Another trouble of the South African farmer is the horse sickness, which attacks horses and mules; and still another, the rinderpest, which kills the cattle. In addition there are seasons of drought, when the crops are burned by the sun, and the cattle and sheep die of thirst and hunger; and at other times storms, accompanied by hailstones, some as big as hens' eggs, destroy the grain and fruit and even kill fowls and goats.

XLV. A VISIT TO AN OSTRICH FARM

THERE is one kind of farming that thrives better in South Africa than anywhere else in the world. This is



Ostriches are being trained to pull buggies and carts. They can run as fast as horses.

ostrich farming. Africa is the home of the ostrich. The bird is found in a wild state on the edges of the Sahara and the Kalahari deserts, and in Abyssinia and Somaliland.

When the English first came, ostriches roamed in large numbers over the great Karroo and other dry parts of the South African plateau, and men hunted them. They chased them on horseback, and shot them whenever they could. The natives hunted the wild birds with bows and arrows, hiding in the sand near their nests, and shooting them when they came near. The chase has been so vigorously carried on that wild ostriches have almost disappeared. They are now seldom seen except in the unsettled parts of the continent.

Most of the ostrich feathers of commerce come from tame ostriches, which are reared on farms. In gathering the wild feathers, the ostrich is killed by the hunters, and each bird furnishes but one crop of plumes. The feathers of the tame ostrich are plucked every seven or eight months, so that one bird gives many crops.

Until within the last century it was not known that ostriches could be domesticated. Then an English farmer near Cape Town caught some little ones and tamed them. He kept them in fields with fences so high that they could not jump over, and fed them, plucking the feathers twice every year. The ostriches grew, they dug out nests in the sand, and laid eggs and hatched them.

They thrived so well that the business became profitable. Then other farms were started, and the habits of the birds were studied in order to learn the best ways of feeding and caring for them. Later the great eggs were hatched in incubators, as well as by the ostriches themselves; and now ostrich farming has become one of the most important industries of South Africa. Many thousands of birds are raised on the farms, and hundreds of thousands of feathers are sold every year.

But suppose we visit an ostrich farm situated on these high, sandy plains which were once the home of the wild ostrich. We motor from the railroad across the country, which is covered with gray, stunted bushes and a scanty growth of brown grass. The farmer's home is a square, brick building surrounded by green grass and shaded by trees. He has a spring near his house, and parts of the farm are well watered. The farm contains about fifteen thousand acres. It is divided into large fields by high wire fences, and on it there are now more than one thousand ostriches of all ages and sizes.

We see some ostriches on our way to the house. What huge birds they are and how odd! They are often called giraffe birds or camel birds, from their long necks and oddly-shaped bodies. Those in the field are taller than the tallest man. See! Some of them have put their heads over the high wire fence as though they would peck at us as we go by. Notice how small their heads are and how big the eyes. They snap their long, wide, flat bills, and the noise sounds like a pistol. Their snakelike necks are covered with fuzzy feathers, their long legs are bare, and on their bodies are beautiful plumes. Some of the ostriches are gray and some glossy black. The gray ostriches are the smaller. They are the hens; the black ones are the cocks.

Now we have left our automobiles and are approaching the fence. The ostriches start off on a trot. They can not fly, but can run as fast as a horse. See how they spread out their wings; they seem to swim on the air as they race over the field.

Our ostrich farmer is an Englishman. He is glad to have visitors at his lonely home on the plain. He asks us to rest awhile, and then takes us over the farm. The fields nearest the house are devoted to the ostrich chicks and to rearing young birds. Here is one in which two-score baby ostriches are feeding. What odd-looking creatures! They are covered with down, like little chickens just hatched; their bodies are as big as a full-grown Plymouth Rock hen, and they seem all eyes, legs, and neck. Their eyes are as large as those of a baby. The chicks are gathered about an old Hottentot who is feeding them grass and the fine gravel with which they fill their little gizzards to grind up their food. He gives them also wheat and water and broken-up bones. These birds were hatched in the incubator only a few days ago, and their Hottentot nurse must watch them

carefully to keep them from catching cold, bringing them back to their warm brooding place in the evening. He treats the chicks as though they were his children, and they follow him wherever he goes.

In the next field are two old birds and about twenty young ones. They are watched over by a Kaffir, who has been with them every day since the young birds were hatched. This is to keep them tame and accustomed to man, and also to see that the jackals, lynxes, and other wild animals do not destroy them at night. Ostriches have many enemies, and in these large inclosures, some of which contain hundreds of acres, it is hard to protect them.

Going onward, we stroll over one great range or field after another. There are flocks of full-grown ostriches in many of them, and we are warned to be careful. The male is fierce when the hen is laying her eggs or hatching, and will attack anyone who comes near the nest. The farmer gives each of us a bush with long thorns upon it, and tells us to thrust this at the head of any bird that runs at us. The ostrich is afraid of hurting its eyes, and keeps away from the thorns.

The cock ostrich is dangerous when enraged. It is not afraid; it will run at its enemy as fast as a horse can gallop, and jump at him and kick him. The ostrich can give a terrible blow. It kicks forward and downward; the kick loses its force as the foot nears the ground. For this reason an ostrich cannot well strike a man lying down; and the keepers, when a mad ostrich attacks them and they have no means of defense, sometimes throw themselves flat on the sand. The bird will then kneel on them and bite them; but he cannot do so much injury as when they were standing.

We are attacked as we pass through one of the fields.

A cock ostrich rushes at us, but the farmer keeps him off with his thorn bush, and finally shows us the nest upon which his mate is sitting. She has seventeen eggs under her in a hole as big as a washtub, which the cock has dug out of the sand. She runs off as we come up, and she and the cock stand about and cry as we handle the eggs, which they are afraid we may break.

The eggs are almost as large as our heads. Each weighs about three pounds, and contains as much matter as eighteen hens' eggs. They are white with black specks on them. Ostrich eggs are good to eat when fresh. A single one will make an omelet for a large family; the omelet tastes just like one made of hens' eggs.

The hen ostrich lays about twenty eggs before sitting, and sometimes as many as thirty or forty. The cock and hen work in partnership in fixing the nest and hatching the eggs. The hen selects the place for the nest, and the cock digs the hole. He sits down in the sand, and by picking and pawing and twisting himself about makes a wide, deep place for the eggs. When the sitting begins, both birds take daily turns, the cock usually sitting by night and the hen by day. They keep this up for about six weeks, which is just twice as long as is required to hatch chicken eggs. The cock spends the longest time on the nest, and he sometimes drives the hen back to her duty if she leaves the eggs when she should not.

The cock ostrich is a good husband and father. He is anxious about his children, and sometimes breaks the shells for them when he hears them trying to peck their way out. The shell of an ostrich egg is about as thick as the pasteboard cover of a school book, and we can see that it is hard for the baby chicks to peck their way through. So when the father hears them tap, tap, tap, he squeezes the egg between

When being plucked, the ostrich is blindfolded and put into an enclosure so small that he cannot kick.

his breastbone and the sand until it breaks; he then tears the inside skin with his bill and lets the baby out. A few hours afterward the little one is toddling around on its long legs, and a day or so later is eating all it can get.

A baby ostrich grows fast. When it is a month old it is as large as a turkey, and at eight or nine months its feathers are ready for their first picking. They are then of little value, but they grow better and better, and are picked regularly every seven months until the bird is full grown; this is at three or four years, after which it may produce more than one hundred dollars' worth of feathers a year. An ostrich often reaches the age of seventy or eighty years.

Our farmer asks us to go with him to a field where they are plucking some birds. One hundred fine ostriches have been driven in by Kaffirs on horseback, and are now inclosed in a small field which has some little pens at one end. Each pen is just large enough to hold one ostrich and his pluckers; but so small that the ostrich has not room to kick while in it. The Kaffirs drive the birds into the pens, using thorn bushes to guide them.

As soon as a bird is inside, the bars are put up, and a cloth like a stocking is drawn over its head. While thus blindfolded it keeps quiet. The wings are now raised, and the long, beautiful ostrich plumes which grow there are cut off close to the skin. There are twenty-five of these in each wing; they are white on the male birds, and white, tipped with gray or yellow, on the females. The shorter feathers, which make ostrich tips, are now clipped and then the tail feathers, of which sixty or more are valuable. In all, about three hundred feathers and tips are taken from one bird, and these will all grow again in a space of seven months. The best feathers come from the male birds.

After plucking, the feathers are sorted and graded. They are tied up in bundles and sent to the ports for shipment to Europe. There they are cleaned and dyed, the white plumes only being left as they come from the bird. Most of the feathers go first to London; from where they find their way to the hats of the ladies of the civilized world.

1. What kind of farming is most carried on in South Africa? Where are the chief grazing lands?

2. Describe the sheep industry. Compare it with that of Australia (See Carpenter's "Australia"); with that of Argentina (See Carpenter's "South America"); with that of the United States (See Carpenter's "North America"). Write a story of wool and its uses. (See Carpenter's "How the World is Clothed.")

3. Visit an ostrich farm and tell what you see. Do most of the ostrich feathers of commerce come from wild or tame birds? What is the difference between an African ostrich and a South American ostrich? (See Carpenter's "South America.")

4. If you are attacked by an ostrich what is the best thing to do?

5. Tell how ostriches are raised. How are the feathers plucked for the market?

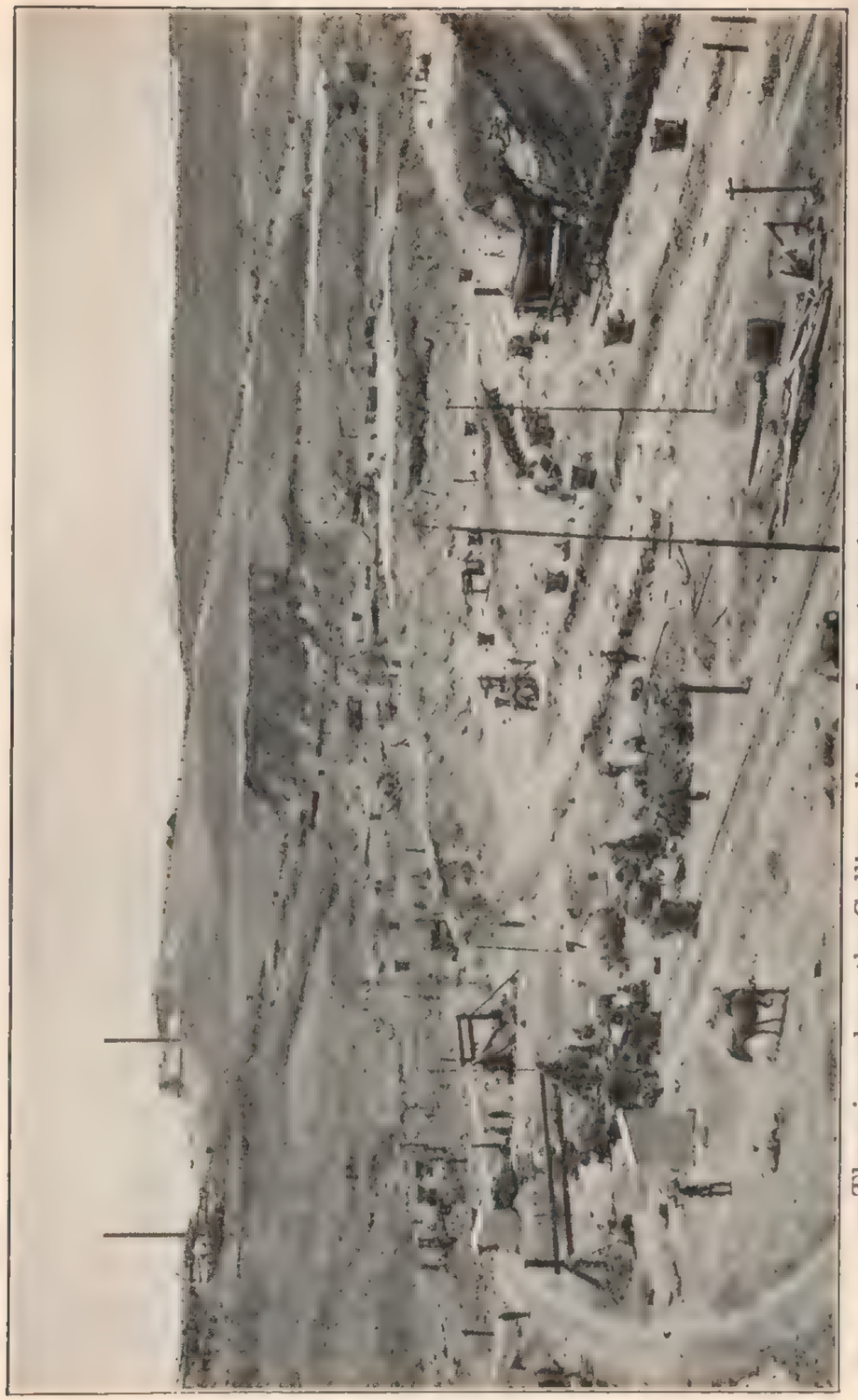
XLVI. THE DIAMOND MINES OF SOUTH AFRICA

WE begin our travels this morning in the heart of the richest diamond field of the world. We are in Kimberley on the high plateau of South Africa, almost seven hundred miles north of Cape Town and five hundred miles from the east coast, in the middle of a vast, sandy plain, with no trees except those in the city itself. The land is almost a desert, with scarcely a hill in sight to break the view. It has no water nearer than the Vaal River, which is seventeen miles away, and when the wind is high the sand blows through the streets, penetrating every crack and crevice of the houses.

To look at the country one would not suppose it worth anything, and the stranger might ask how this thriving city, with its electric lights, fine shops, hotels, and daily newspapers, came to exist. He might wonder at the well-dressed crowds on the streets and at the business which goes on everywhere. He would soon learn that Kimberley is one of the richest towns on earth. The land about it produces more wealth than almost any other of the same area; and this wealth comes from diamonds. More than seventy-five per cent of all the diamonds now produced come from South Africa, and larger, purer, and finer stones are found here than anywhere else. Within about fifty years more than thirty-one tons of diamonds have been taken out of South Africa. A ton makes quite a load for two horses, and if you will imagine as many diamonds as sixty-two horses all pulling at once could haul, you may have some idea of the enormous quantity of the jewels comprised in the thirty-one tons.

It takes only a small diamond to be worth one hundred dollars, and as you may imagine, this product is worth many, many millions. It has, in fact, sold for more than one billion dollars. As much as fifty million dollars' worth of diamonds are sometimes taken out of South Africa in one year, and thousands of men are working to get the precious stones from the earth.

In ancient times India supplied the chief diamonds of the world. Afterward some were found in Brazil not far from Bahia, and thousands of diamond seekers rushed to that place. No one then supposed that there were diamonds in South Africa, and it was not until 1867 that a man named John O'Reilly made the first diamond discovery. O'Reilly was hunting near the Vaal River when he stopped to rest one night on the farm of Schalk van Niekerk, a Dutchman,



The mine where the Cullinan diamond was found is not far from Pretoria.

who lived there away off in the wilderness. As the hunter chatted with his host he saw some beautiful pebbles from the banks of the Vaal River lying on the table. He admired them, and his host told him to take them along if he liked. He did so and among them found one that would cut glass. It was a diamond, worth twenty-five hundred dollars.

As soon as this became known, both Europeans and natives began to search that region for diamonds; but it was about two years before another large stone was discovered. This was found by a Hottentot, who traded it for a little drove of cattle and some sheep, worth about two thousand dollars. It was then sold to the diamond merchants for fifty thousand dollars, and after cutting was bought by the Countess of Dudley for more than twice that amount. It proved to be a pure white diamond, weighing about three and one half ounces.

At the news of this great find, many men came and dug up the gravel of the Vaal and Orange rivers searching for diamonds. They found none to speak of along the Orange River, but some here and there along the Vaal, and they gradually pushed out, searching the land until they came to where we are now. Here more of the precious stones were discovered than anywhere else, and the ground was dug up and washed to see if some might not lie beneath.

After a short time the searchers found several places near Kimberley where there were quantities of diamonds mixed with the earth, running down no one knows how far under the ground. At the surface were a few feet of red sand, and under that a somewhat thicker deposit of lime-stone. Below the limestone lay the hard clay containing the diamonds. The clay is blue in color and the diamoniferous earth is called blue ground. It is composed of fragments of many kinds of rock, the whole cemented, as it were, into

one solid mass. This blue ground extends downward in the shape of great pipes or funnels.

At first mines were sunk everywhere throughout the diamond territory to learn where the best deposits were, and from them it was ascertained that there were five principal fields all lying about Kimberley in a circle not more than three and one half miles in diameter. These mines are the Kimberley, the De Beers, the Dutoitspan, the Wesselton, and the Bulfontein.

At the beginning the mines were worked from above, like a stone quarry or gravel pit, the blue ground being carried to the surface in baskets over cables of wire. Then great shafts or pits were sunk along one side of the blue ground deposit, and tunnels were made from the shafts by which the blue rock was brought out and carried to the surface by machinery operated by steam. All the mining is now on a grand scale; and the best of the diamond territory has been bought by one company, known as the De Beers Company, which has a capital of twenty million dollars, and practically controls the diamond product of South Africa.

We have letters of introduction to the managers of this company, and through them are furnished a guide who takes us down into the works and shows us how diamonds are mined. We go to the shaft and step into the elevator. The guide gives a signal and we sink down, down into the darkness. Now we pass a tunnel, where half-naked Kaffirs are blasting out the rock and loading it upon trucks, which they shove over tramways to the shaft, only to drop again into the darkness and descend until at last we stop more than a thousand feet underground.

We walk off through a tunnel, following the car track to where the miners are working. They are black-skinned

The diamonds are separated from the gravel on sloping tables.

natives wearing little more than a cloth about the waist. Some have picks and are digging down the blue rock, others are lifting the great lumps into cars, and others are wheeling the trucks to the shafts. It is hot, and drops of sweat stand out on their black skins as they work.

The mine is lighted by electricity, and we can see everything as plainly as though it were day. Our guide shows us the rock, and we take some up in our hands. It feels like soap, and we look in vain for the diamonds.

After a while we go with the cars up the elevator and follow them from the top of the shaft to the drying fields, where men are spreading the blue rock over the ground.

These fields are lighted by electricity at night. They are surrounded by fences, and men are always on guard to see that no one steals the diamonds. Each inclosure looks like a field of light blue earth thrown up by gigantic plows. The great clods are as hard as sandstone, and it requires months of weathering before they are ready for washing. From time to time water is sprinkled over them, and now and then the field is harrowed. These processes make the rock soft; it begins to crumble, and is then ready for washing.

The blue stuff is now taken up and run through a mill. It is carefully crushed and then put into cylinders and pans, and whirled round and round. Water is admitted from time to time. The clay melts and flows off as a mud, and the gravel containing the diamonds rolls down over sloping iron tables covered with grease. The tables are always shaking back and forth. As the gravel goes over them the diamonds, which are heavier than the other stones, fall to the bottom and stick in the grease. By and by the grease containing the diamonds is scraped off and melted so that the diamonds are saved. As we look at the precious stones they do not seem bright. A rough diamond is white, but it shows little of the brilliancy it will have when cut and polished.

The rough diamonds are next taken to the company's office, where they are cleaned with acids and carefully classified with reference to color, size, and purity. They are then made up into parcels and valued, and are sold to local buyers who represent the chief diamond dealers of the world. These men ship them to Europe and the United States, where they are cut and polished and made into jewelry. The principal diamond cutters of the world are in Amsterdam, but a few years ago the parliament of the Union of South Africa passed laws by which a diamond

The actual size of the Cullinan diamond, the largest ever found.

cutting industry, with a capitalization of ten million dollars, may be established here, where the diamonds are found.

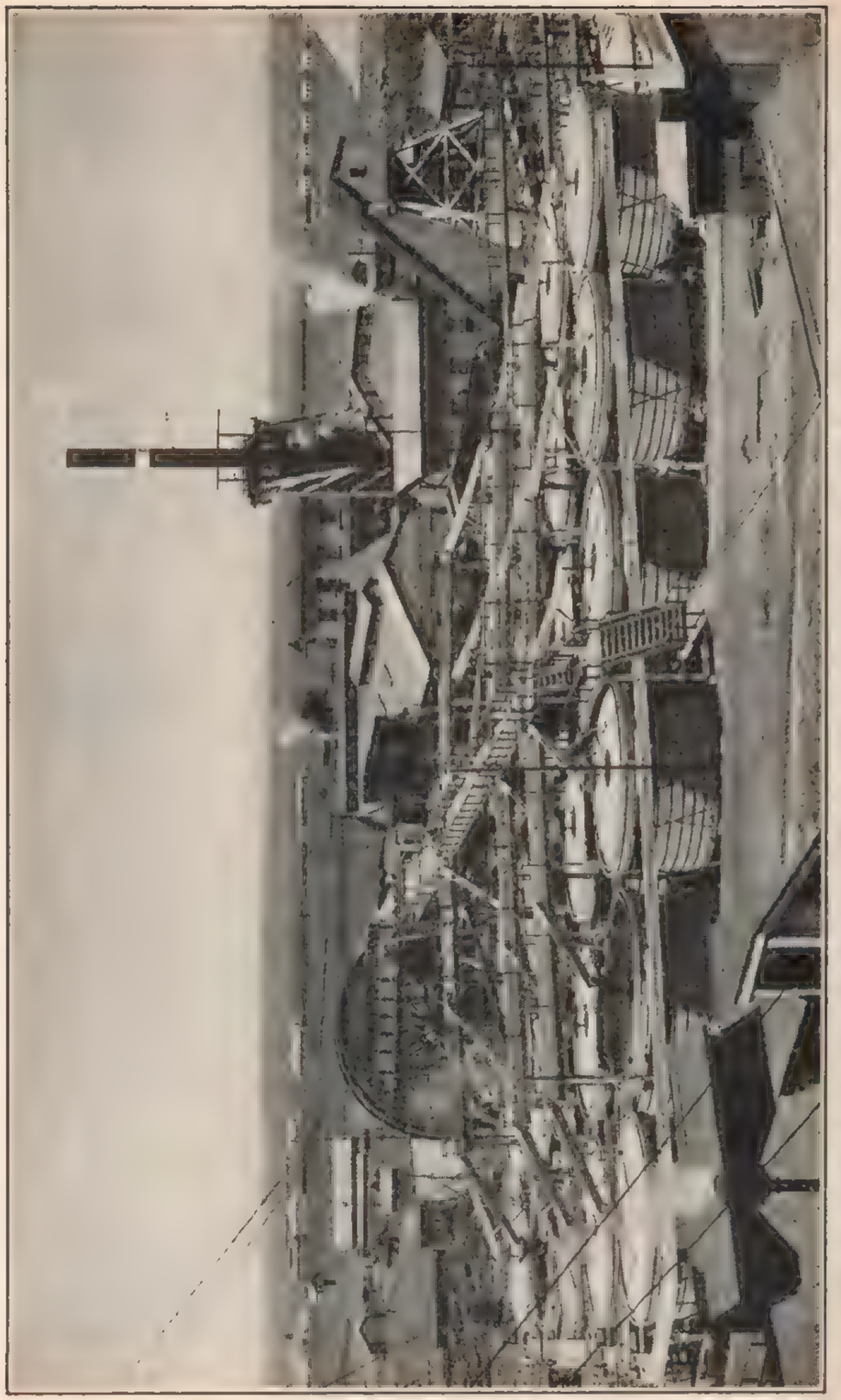
South African diamonds are of a great variety of colors. The most valuable are pure white, but others are green, blue, pink, brown, yellow, and orange. The size, purity, and color determine the value. In March, 1888, a yellow diamond was found in the De Beers mine which weighed four hundred and twenty-eight carats in the rough, and two hundred and twenty-eight carats when it was cut; but this was surpassed by a diamond weighing nine hundred and seventy carats, discovered in the Orange Free State six years later. A still larger one, weighing over three thousand carats, was found near Pretoria in the Transvaal in 1905.

As we walk through the mine we ask our guide if diamonds are not often stolen. He replies that this is sometimes the case, although every precaution is used to prevent it. The natives who are employed must each agree to stay for three months. They live, while not at work, in compounds, or great open squares, connected with the mines. Each square is lined with the iron sheds where the men sleep, and is surrounded by a close, high, iron fence. It has a roof of fine wire netting to prevent anyone throwing the diamonds he may have stolen to his friends outside. The men are carefully watched while at work to see that they do not either swallow the diamonds or conceal them about their persons; and they are often searched to find whether they have not hidden a stone under their armpits, between the toes, or even in sores made for the purpose in their bodies. Each man is given a new suit of clothes when he enters the mine, and he is stripped and carefully examined before he leaves. In addition to this, the law has severe penalties for buying diamonds of natives or others who cannot show just how they got them.

XLVII. THE GOLD MINES OF THE TRANSVAAL

OUR travels to-day are to be in some of the richest gold fields of the world. South of Rhodesia, on the high plateau several hundred miles west of the Indian Ocean, in the Transvaal, one of the states of the Union of South Africa, lies a narrow strip of country which for years has been producing almost half of the gold of the world. This strip is about one hundred and twenty miles long. It is not wide, and its surface is only about a mile above the sea. The country in which it lies is dry and but little fitted for crops, but under the soil lie great reefs of rock which are streaked here and there with veins containing quartz pebbles. The veins make one think of a pudding in which the pebbles are the raisins. The pebbles range in size from the egg of a swallow to that of a goose. They are solid quartz and are of no value. The dough of the pudding, however, is sprinkled with gold, and it is in the dough that these great riches lie.

It is from such formations that has come the most of the gold of South Africa. The mines began to produce a little more than a generation ago, and up to this time more than three billion dollars' worth of this yellow metal has been taken from them. The miners are now getting out more than one hundred and seventy million dollars' worth in one year. These sums are so enormous we cannot comprehend them. Let us try to appreciate the amount that is coming out now. Stop a moment and listen to the tick of the clock on the wall. Every tick means one second. The gold now flowing from the ground we are about to visit is so much that it measures more than five dollars for every tick of that clock. It means more than three hundred dollars for every minute, and more than nineteen thousand dollars



Ore-reducing plant on the Rand. The gold is separated in the tanks by chemical processes.

per hour. The amount mined every day is more than four hundred and seventy thousand dollars, and the amount every month about fourteen millions. The gold stream of five dollars per second flows on second after second, minute after minute, hour after hour, day and night, all the year through.

But this is only one of Africa's gold regions. There is also gold in Nigeria and along the Gulf of Guinea. Gold is found in Abyssinia, in the Anglo-Egyptian Sudan, and in Tanganyika Territory. We have seen them mining it in Rhodesia about Bulawayo, and it is found also in Angola and Mozambique. This continent was known as a land of gold before the Cape of Good Hope was discovered. Some of the gold of Solomon's Temple is supposed to have been brought down the Nile to Egypt, and fabulous stories were told of rich mines near the source of that river.

When Vasco da Gama returned from his first voyage to India around the Cape of Good Hope he found a colony of Arabs trading with the natives for gold near Sofala Bay, and later on, gold in the form of dust was discovered along the Gulf of Guinea. Indeed, the word "Guinea" used for an English coin came from the fact that the gold in it first came from that region. It was not until the middle of the last century that it was known that there was gold in the Transvaal, and it was in 1884 that the first mine was put down. Since then a golden river has steadily flowed from here out to the world.

We spend all day on the train going from Kimberley to Johannesburg, the chief city of the gold regions. Most of our way is over a bleak, dusty plateau. Now we pass a little village, and now the home of a farmer, surrounded by trees. We see herds of cattle and numerous flocks of sheep and goats. We ride by ostrich farms where the huge birds

spread out their wings and fairly swim upon the air as they race with the train. There are long teams of ox wagons at the stations, and now and then a group of dark-skinned natives stand and stare as the cars go whizzing by. The air is wonderfully clear, and we can see ranges of blue hills here and there in the distance.

We cross the Orange Free State and enter the Transvaal, and after a few hours find ourselves coming into Johannesburg, in the very heart of the gold region. The smokestacks of the mines, which are visible long before we get to the city, extend for miles on either side. The great buildings near them contain mining machinery and smelting works, and the piles of refuse are the waste from which the gold has been taken. There are automobiles and jinrikishas at the station, and we ride in comfort through wide, well-paved streets to the hotel.

We are now in one of the busiest cities of Africa. Johannesburg is larger than any other town we have seen since we left Cairo, and more like one of our cities at home. It has beautiful houses, big stores, and fine public buildings. It has daily newspapers, a free library, and public schools. There are electric street cars going in every direction; also automobiles, cabs of all kinds, and even jinrikishas. We ride out to the parks, and in the pleasure grounds of the Wanderers' Club watch a cricket match, and see boys and girls riding bicycles on tracks made for the purpose.

In Commissioner Street we shop in stores as fine as those of our great cities, and later stroll on down to the market square in the center of the town. It is a vast space filled with ox wagons loaded with hay, grain, and other products which have been brought in from the country about. The Transvaal and Orange Free State have good grazing lands, and the farmers travel many miles to sell their crops in this

Johannesburg is an up-to-date city, with paved streets and modern buildings.

square. Some of the wagons are owned by Dutch, others by Englishmen, and a few are driven by black-skinned natives, who are usually servants.

We watch the buying for a few moments and then enter the market buildings in the center of the square to see the retail buying and selling. Next we visit the post office and then the stock exchange, being jostled on our way by one of the strangest crowds of this strange continent.

Johannesburg has about three hundred thousand people, one half of whom belong to the white race. There are men from all parts of Europe who have come here to mine or do business. There are also tens of thousands of Kaffirs and

other natives, who work in the gold mines, and many Hindus and Arabs and even Chinese. The yellow-skinned, the black-skinned, and the brown-skinned races jostle the whites on the streets—all are gathered here by their desire for a share of the precious metal that lies under the ground.

At the stock exchange we learn that most of the mines belong to the British. They are owned by companies of rich men in London and elsewhere who operate them with large capital, using the finest of modern mining machinery. We meet the managers of some of the mines, and have little difficulty in learning how the gold lies in the earth and the methods of taking it out and making it into gold bricks for shipment to Europe.

After a day at Johannesburg we ride in motor cars along the great gold-bearing strip from one mine to another. Each mine has a huge shaft above it, up which, all day and all night, come these quantities of gold-bearing rock. Near by are stamping mills in which the rock is crushed to a flour and the flour washed with water through a wire screen so fine that the holes are not larger than the point of a needle. The flour, which is now mud, then flows over copper plates coated with mercury, or quicksilver. The gold has such a liking for mercury that it leaves the flour and goes into the mercury, which soon contains most of the gold. The mixture of mercury and gold is then melted in a furnace so hot that the pure mercury passes off as a vapor, leaving the gold.

This process takes out most of the precious metal but not all. What is left is extracted either by the cyanide or by the chlorination process. In the chlorination process the ore flour is roasted and then chemically treated. In the cyanide process it is mixed with a solution of cyanide of potassium and water. The gold has a greater liking for the cyanide mixture than it has for the rock. It leaves the flour and

goes into the cyanide water, which is then poured over shavings of zinc. The gold is more fond of zinc than of cyanide, so it leaves the water and sticks to the zinc, which is then so treated that the zinc passes away and only the gold remains.

During our stay we go down into a mine, riding in an elevator, past tunnel after tunnel, until at last we are many hundred feet below ground. We come out in what seems like a mighty cave about twice as high as our heads and running down at an angle of forty degrees for hundreds of feet. It is a flat slanting hall with floor of rock and roof of rock covering acres. It is from this hall that the gold-bearing earth has been taken. We make our way down the slope to where they are blasting out the veins containing the gold, and pick up some of the rock. It is of a bluish color, consisting of pebbles of white imbedded in this cement which we are told is peppered with iron and gold. We look in vain for the gold. There is no yellow whatever. The precious metal is in crystals and flakes so small that the eye cannot see them. It is only when the rock has been crushed and treated with mercury and cyanide that the gold appears.

We find some Chinese and many negroes at work in the mines, although the superintendents are white men. We find white workmen in the smelter, and in the office of the superintendent an Englishman shows us a great safe containing bricks of pure gold so large that we cannot lift more than one at a time.

1. What is a diamond? Find out all you can about this precious stone, and how it is mined in different parts of the world. (See Carpenter's "How the World is Clothed," chapter 38, also Carpenter's "South America," chapter 45.)

2. How were diamonds discovered in South Africa? Make a visit to the Kimberley mines and tell what you see. Compare them with the diamond mines of South America.

Kaffir policemen of Natal, armed with clubs and spears.

3. How are diamonds cut? (See Carpenter's "Europe.")

4. Where are the chief gold mines of Africa? Give some idea of their extent and value. Where else in Africa is gold found?

5. Visit a gold mine near Johannesburg and tell how the metal is gotten out. Compare the gold product with that of the United States; of Australia; of South America.

XLVIII. NATAL, THE GARDEN OF SOUTH AFRICA

TO-DAY we leave the high, dry plateau and make our way by railroad down to the Indian Ocean through the colony of Natal, the Garden of South Africa. This country, which is almost as large as the state of Indiana, was one of the first discovered by the Portuguese. When Vasco da Gama in 1497 came around the Cape of Good Hope, he made a short voyage up the east coast, and on Christmas Day, the natal day, or birthday, of our Saviour, entered the beautiful bay on which Durban, the chief city of Natal, stands. He called the place Port Natal in honor of this discovery, and this has been adopted as the name of the province about it. Durban has one of the best harbors on the eastern coast of the continent, and almost one thousand vessels call there every year. Railroads have been built from Durban to the high plateau, and goods for Johannesburg and the towns north of it are brought there and sent over these roads.

We take the train at Johannesburg for Durban. The cars are comfortable, and we could if we wish make the journey of four hundred and eighty miles in one day. The first part of our trip is over the high, dry, brown plateau upon which cattle, sheep, and goats are everywhere feeding.

We cross the Vaal River, and a little later are in the Drakensberg, or Dragon Mountains. We go down to the coast over a succession of terraces beautifully green. We pass by ravines carpeted with maiden-hair ferns, riding now through wooded hills and again over rolling meadows where fat cattle are feeding. There are many fine farms with comfortable homes. Some are fenced with green hedges, and there are frequent groves with trees from one hundred to one hundred and fifty feet high.

The crops change from time to time as we pass from the plateau down to the sea. On the highlands there are fields of barley, oats, and maize, and fine cattle and sheep. Farther down are orchards of peaches and apples, and lower still, tea and coffee plantations. Along the coast the climate has a tropical character, and there are fields of rice, sugar cane, and tobacco, together with lemon and orange groves, mango trees, and large beds of pineapples.

Natal grows excellent fruit, and it exports oranges and pineapples to the other colonies about. It has large tea plantations, exporting several million pounds of tea every year. It grows sugar cane and tobacco, and the people are prosperous. The best lands belong to the whites, the blacks working for them. Indeed, this is so common throughout South Africa that it is said the whites form the brains and the blacks the muscles of the country.

Most of the natives of South Africa belong to the Bantu race. They are Kaffirs or Zulus, who formerly lived in villages scattered over the country, owning cattle and sheep. There are still Kaffir farms, and also reservations—lands which the Natal government has set aside for the natives. These Kaffirs live in low, round, beehive-shaped huts, made of poles thatched with straw over which is tied a network of ropes. Such a hut is often surrounded by a fence or

Most of the tea of Natal is picked by women, who carry it in huge baskets on their heads.

hedge, inside which the cattle are kept at night. Some Kaffir villages have such stockades inclosing all the houses, and sometimes a field will be fenced in, outside the village, for the stock.

The interiors of these native huts are of the rudest description. The floor is the ground, and there is little or no furniture except a few pots or kettles, the cooking being done over the coals.

We stop off a day on our way to the coast, at Pietermaritzburg, the capital of Natal. It is situated in the hills about seventy miles above Durban, and is noted for its delightful surroundings. The climate is excellent; there is plenty of

rain, and the grass is green all the year round. The houses are built of bright red brick, and many of them have beautiful gardens. We call upon the administrator and visit the council building, where the local laws for the province are made. We find white people everywhere, and are told that most of them come from England and Scotland, the Dutch being few.

There are also many East Indians, not only here in Natal, but in the other colonies of South Africa. They have come across the Indian Ocean from Hindustan to labor on the plantations, work in the mines, or engage in trade. There are so many in Natal that the government has established schools for them, just as it has schools for the natives and whites.

Again taking the train, two hours brings us to Durban on the Indian Ocean, hundreds of miles below Lourenço Marques and more than eight hundred miles from the Cape of Good Hope. As we come out of the station we see all sorts of vehicles ready to take us to different parts of the city. There are cabs and carriages with East Indian, Malay, or native African drivers, automobiles, street cars, and jinrikishas, with men in the shafts. We each choose a jinrikisha, and are soon trotting through the streets behind some of the queerest steeds of the world. The jinrikisha men are Zulus, wearing white cotton tunics trimmed with red calico, and white trousers cut off at the knees. Every man has his head dressed his own way. Some have cows' horns fastened to the skull and the hair wrapped around them; others have strings tied to their wool to which fluffy balls are attached; and others have the hair combed so that it stands out like mops on their heads. They are good-humored fellows, and we go like the wind as they take us from one part of the city to another.

Our jinrikisha man in Durban wears cows' horns on his head as ornaments.

We first visit the wharves, where there are great ships from England, Germany, and other parts of Europe loading coal brought from the mines of northern Natal. The coal is carried into the ships in baskets by Zulus, a long line of men marching up and down for hours at a time.

Among the ships at the wharves are several whalers, for Natal is one of the few countries which still have a whaling industry. In the past the South African waters were famous for the whales which swam through them, but so many of these huge animals were caught that the business died out for a time, and it was not until the latter part of the last century that the whales again became plentiful. In 1911 more than seventeen thousand were caught, and for some time after that many hundreds were taken each

year. The whale industry is now regulated by the government and only so many are allowed to be taken. The whales are valuable for their oil, meat, and bone, the refuse being used as a fertilizer, which brings a high price on account of the ammonia and phosphates contained in it. Whale oil usually sells for more than one hundred dollars per ton.

Leaving the wharves, we go back to the city and spend some time riding through its wide streets. Zulus are employed as policemen, and good order is everywhere kept. Our jinrikisha men take us to the schools, the parks, and the botanical garden, ending the journey at the public bathhouse near the town hall. Here we go in for a swim. The tank is ninety feet long, thirty feet wide, and three feet deep at one end and eight feet at the other.

After our bath we take a street-car ride through the town, and then shop in the stores. Many of the smaller establishments are kept by East Indian merchants, who wear high turbans of various colors. They have a large part of the trade of the natives; they are also peddlers, carrying goods about from place to place.

XLIX. THE PROVINCE OF THE CAPE OF GOOD HOPE

WE have left Durban and are now in the Province of the Cape of Good Hope. We came to Cape Town, the capital, by sea, calling at East London and Port Elizabeth on the way. Our ship, which is one of the great ocean liners that ply between South Africa and England, took on a cargo of wool and ostrich feathers at Port Elizabeth, and in its hold were oranges, apples, coffee, and tea, which will be carried to Southampton or London.

The distance from Port Elizabeth to Cape Town is more than four hundred miles and we were about sixty hours on the way. We steamed by Cape Agulhas, the southernmost point of the African continent, and rounding the Cape of Good Hope entered Table Bay and came to anchor at the wharves of Cape Town.

We are now in the chief commercial city of South Africa and one of the great ports of the world. Huge ocean steamers from Europe, North America, South America, Asia, and Australia are lying at the wharves, and the scenes of loading and unloading cargo are busier than in any other African port we have visited. There are huge docks all about us, and enormous breakwaters have been built out to protect the shipping. The railroad cars come right to the steamers, so that goods can be carried from here to the chief ports of South Africa. The imports and exports of Cape Town amount at times to many million dollars a year.

We land and take automobiles for a drive through the city. How beautiful it is, and how strange! It is built about the shores of Table Bay, rising up the steep slope of Table Mountain, which lies behind. That peak to the left is Devil's Peak, more than three thousand feet high, and the mountain at the right is the Lion's Head, which is about two thousand feet above where we now stand. Table Mountain itself is a thousand feet higher than Devil's Peak. It rises behind the town in a sheer precipice, cutting the sky line with a jagged front two miles in length. As it stands there it looks like an enormous table. There are often white clouds above it which at times spread out and hang down over the top, looking for all the world like a great tablecloth.

We find Cape Town well built. It has large stores of brick and stucco, beautiful residences, and fine public buildings. A belt of gardens incloses the city, and there are botanical

We find Cape Town like an American or European City. Table Rock rises behind it.

gardens in the center filled with tropical plants and fruits. The streets are well paved, and there are excellent roads leading out into the country. Many of the houses in the suburbs are of one story, but nearly all have gardens and yards about them, and they seem quite as comfortable as our homes in America.

Most of the people are white; but we meet many natives as we go through the streets, and also Malays in turbans, and lithe Hindus in the dress of East India. There are English soldiers from the garrisons near by, queerly dressed sailors from all parts of the world, and strangers from everywhere who are passing through this gate of the African continent.

We spend several weeks making excursions by rail to the different parts of the province. Cape Colony is one of the most important of the British possessions in Africa. It is of vast extent, being larger than Texas and Massachusetts combined, and has such an excellent climate that white men can live in it quite as well as in Europe.

A century ago the country was wild and almost unknown. It abounded in game and was inhabited chiefly by savages who fought with one another. To-day Cape Colony has great farms and stock ranches, and also vineyards and orchards. It produces a vast quantity of fruit and makes wine for export to Europe. It has more than a million cattle, more than a million sheep, about five million goats, and two hundred and fifty thousand ostriches. Cape Colony has daily newspapers, public libraries, and excellent schools. The province has good roads and railroads and an extensive telegraph system. The Cape-to-Cairo railroad, upon which we have already traveled, begins at Cape Town and extends into the Belgian Congo. It will some day be extended northward to connect the great African lakes and

The laws for South Africa are made in the Parliament House at Cape Town.

the Egyptian railways, and then we can come from Cairo to Cape Town by steam.

During our stay in Cape Town we visit the parliament house, a fine granite structure in a beautiful garden. The Union of South Africa is under the control of a governor-general appointed by the King of England, but the laws for the Union are made by a parliament, or congress, which is elected by the people of the provinces, and which meets every year at Cape Town. Cape Colony and the other provinces of the South African Union also have provincial governments, somewhat like the governments of our states.

In our travels through the states of South Africa we have met many Boers. They are the descendants of Dutchmen who came from Holland many years ago to live in South Africa. The country, as we know, was first discovered by

the Portuguese; but the Dutch, who are great traders, followed fast on their heels and soon had ships going about the Cape of Good Hope to India. Many of these ships stopped at Table Bay and brought back news to Holland that the land was fertile and fitted for stock and grain raising. In 1652 some Dutchmen came out and formed the first settlement near Table Bay. Others followed, and the country was declared a possession of Holland. It remained so until 1795 when the English, being at war with the Dutch, captured it. Upon the declaration of peace the English restored the country to the Dutch; but in another war they again took possession of it and this time for good, merely paying the Dutch several million dollars for it.

The Dutch farmers did not like the British government, so they moved farther back into the interior, traveling in huge wagons with long teams of oxen. As the English came northward, the Boers pushed on and on, taking up farms here and there until they had established themselves in many places in the upper part of Cape Colony and also in the Orange Free State and the Transvaal.

Then a long war occurred between the Boers and the British, and the Boers were conquered. Their colonies became subject to Great Britain; and in 1910 Natal, the Transvaal, the Orange Free State, and Cape Colony formed the Union of South Africa, which has its seat of government at Pretoria, although its parliament meets at Cape Town.

L. THE PROTECTORATE OF SOUTHWEST AFRICA

WE have now completed our exploration of the African continent with the exception of two unimportant colonies in the southwestern part, at the ports of which we

shall call on our way home. The first is the Protectorate of Southwest Africa, which lies west of Cape Colony and Rhodesia, extending from them to the Atlantic Ocean; and the other is Angola, or Portuguese West Africa, which is north of Southwest Africa, reaching from there to the Belgian Congo. Each of these colonies covers a large area, but the climate of a great part of them is so unhealthful that they have not been thoroughly explored.

The Protectorate of Southwest Africa is especially interesting on account of the World War. It formerly belonged to the Germans, but at the close of the war it came under the protection of the British, who are now governing it. Before the World War the Germans had built hundreds of miles of railway in the territory, and when the British army marched north to conquer the Germans they extended the railways of the Union of South Africa to connect with those of the German territory, so that one can now go from Cape Town to Windhoek, the capital, by rail. The distance is farther than from New York to the Mississippi River, and the trains are so slow that it would take about four days to make the journey. We therefore decide to take the steamer and call at the ports of the Protectorate, making our way here and there inland.

We stop first at Angra Pequena Bay and thence sail northward to Walfish Bay, from where we go inland to Windhoek by rail. Our journey along the coast gives us some idea of the country. A large part of it is desert. It has no rivers worth mentioning except the Orange on the south and the Kunene (kōō-nā′nĕ) and the Kubanga, a branch of the Zambezi, on the north. The other streams flow only during the wet season, and then but for a short time when the torrential rains fill their beds so that they overflow the banks and cover the land for miles about like

An official building at Windhoek, now taken over from the Germans by the British.

a sea. After the storm has passed the flood disappears, and the river beds are dry again.

Along the coast the land is almost altogether desert, the chief plants being dry acacia bushes and starved heather, which are to be seen here and there in the hot sand. Back of this coastal strip there is a mountain range, separating the high plateau of the interior from the sea.

The mountains are also bleak and bare, and this is so of the southern portion of the colony. It is only in the northern and western parts of the plateau that there is enough water to support much animal life. In those regions there are wide, grassy plains, upon which feed antelopes, zebras, and herds of cattle; there are also thin groves where leopards,

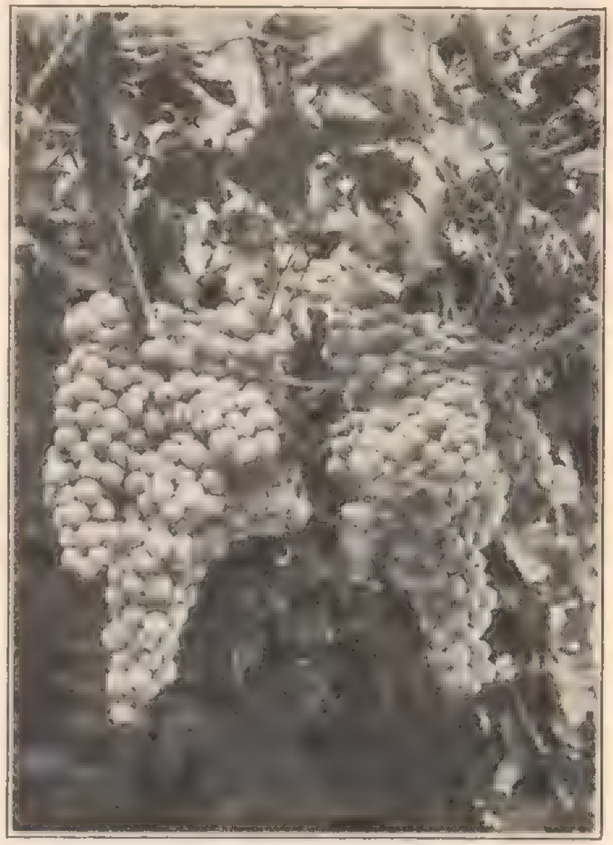
jackals, and lions and an occasional herd of buffaloes or elephants are to be found.

The northern part has most of the natives. It is called Damaraland, and its people are sometimes called Damaras. They are chiefly Bantus with brown skins and black hair, and are not unlike the Kaffirs in appearance. They dwell in families of from ten to forty. Many of them have large herds of cattle and sheep. At the extreme north are the Ovambos, an agricultural people numbering about two hundred thousand.

The southern part of the colony is known as Namaland, and is inhabited chiefly by tribes of Namas, a species of Hottentots. The Namas are as ugly as any people in Africa. They are short in stature, gaunt, and angular. They have yellowish brown skins, high cheekbones, and pointed chins. Their noses are flat, their lips thick and protruding, and their ears large and almost without lobes. Their language sounds to us like the cackling of geese; it consists of a succession of clicks.

These people are clad in sheepskins. They wear the wool outside in the summer and turned inward in the winter. Some have aprons to which glass beads are attached, and which reach to the knees. They smear their bodies with rancid grease.

The Namas are divided into many small, independent tribes, each ruled by its chief. They live in villages of beehive-shaped huts. Sometimes a village has ten huts, and sometimes more than a hundred. The huts are so low that a grown man cannot stand upright in them. Each is formed by a framework of branches tied together in the shape of an inverted bowl, with matting stretched over it. There is a little door at one side through which the people crawl in. Sometimes as many as twelve live in one hut, keeping everything dirty in the extreme. The huts are built close to one another, in a circle, with their doors at the back. The space within the circle is used for the cattle at night.



Southwest Africa, with its many vineyards, is noted for its fine grapes.

The area of the Southwest Africa Protectorate is about eight times that of Ohio. The whole southern part of the country is barren, and so far but little farming has been done anywhere. The natives have large herds of cattle and sheep, and the British government is planting cotton and tobacco on its experiment farms. It is teaching the people how to grow silkworms, and is setting out vineyards and gardens. The chief resources of the Protectorate, however, are in live stock. In 1921 the country had perhaps a half million cattle and two or three million sheep and goats. The land is so dry that no farming is possible without irrigation.

The Protectorate has deposits of coal, iron, copper, and tin, and diamonds are found mixed with the gravel and sand along the coast. The diamonds are washed out by means of sea water. They are not large, but up to the time that the

British took hold almost a million carats had been washed out, and hundreds of thousands of carats a year are now being found in the sands. These diamonds are of little importance, however, in comparison with those at Kimberley, where the precious stones are found in the mighty volcanic masses of blue clay.

1. How did Natal get its name? Describe the country and some of its natives. Who are the Kaffirs? What is the capital of Natal? Take a walk through it and tell what you see. What is the chief port?

2. Take a trip from Durban to Cape Town, mentioning the principal ports of call. Which is noted as an ostrich feather market?

3. What is the southernmost point of the African continent? What cape there is best known in history? By whom was it discovered? What navigator first sailed around it on the voyage to India?

4. Visit Cape Town and tell how it looks. Of what great confederation is it the capital? Who are the Boers? By whom are they governed today?

5. To whom did the Protectorate of Southwest Africa belong before the World War? How is it bounded? Give its size and character. Tell all you can about the natives of the Protectorate. What are the chief products?

LI. ANGOLA, OR PORTUGUESE WEST AFRICA

WE have left Southwest Africa and are now traveling along the coast of Angola. The country grows more fertile as we sail northward. The coastal plain is green, with heavily wooded mountains behind it.

Angola has belonged to the Portuguese since 1575, with the exception of a few years when it was held by the Dutch. It stretches along the Atlantic Ocean from the Kunene River to the mouth of the Congo, a distance of about one

thousand miles, and it goes so far inland that its area is equal to about ten states as large as New York. Most of the country is composed of the high plateau back of the mountains. This is well watered. Its vast forests bound together with vines, and its great plains covered with grass from five to twelve feet high, have the appearance of a jungle.

Our route along Angola.

The forests are much like those of the Congo. They have oil palms, baobabs, and other tropical trees with beautiful blossoms. There are many orchids, and among the creepers are some with a sap from which rubber is made. The rubber creeper has a yellow fruit as large around as an orange, with a pulp that tastes somewhat like a lemon. If this creeper is cut a milky juice will ooze out and harden upon exposure to the air. It is one of the rubbers of commerce.

The grass of the Angola plains is like that we saw along the banks of the Congo. It is from five to fifteen feet high, and has blades as sharp as a knife. It is so high that it shuts out the wind and makes traveling through it difficult. Sometimes when the grass is dry the natives set fire to it. Then the whole plain is flame-covered, and sparks by thousands shoot up above the wall of fire. At the same time the grass stems burst with a sound like myriads of pistol shots. Such

a fire roasts the rats, mice, snakes, and other animals which live in the grass; and it is always followed by a great flock of birds which swoop down upon the black plain to eat up the dead.

The forests and jungle never burn. They are the refuge of antelopes, elephants, hippopotamuses, buffaloes; and there even lions and leopards are found.

Angola is more thickly peopled than the Protectorate of Southwest Africa. It has numerous Bantus, similar to those we saw on the Congo. Each has its own chief, and the different tribes are often at war with one another. There are but few whites except at the ports and at the trading stations in the interior, and most of the country is altogether wild and unexplored.

We first call at Mossamedes (mŏs-sä′mā-dĕs) in southern Angola. It lies on the coast about two hundred miles north of the Kunene River, in a region of good grazing lands, where the natives train their cattle as riding animals. We find some oxen at the wharf, and hire them for a jaunt into the country during the stay of the steamer. Our saddles are well-padded leather cushions with stirrups attached, and our bridles are each a pair of reins fastened to a round iron bar thrust through a hole in the animal's nose. The oxen trot easily, and we can guide them in this way as well as though they were horses and we had the ordinary bridle and bit.

Going northward, we stop at Benguela, and explore the harbor of Lobito Bay hard by. This is one of the best harbors on the coast of West Africa, and when the railway which is now building from Benguela to the copper mines of Katanga in the Belgian Congo is completed it will become a great commercial center. The distance is eleven hundred miles. Then one will be able to travel by rail from

Angola native women load their ankles with telegraph wire.

Cape Town to Katanga and westward through Angola to Lobito Bay, or he can go eastward and reach the Indian Ocean.

Benguela is a thriving settlement situated on a level plain near the sea, with green hills a few miles behind it. The town has several fine squares, some factories, and good houses and stores. Caravans of natives are always coming in or going out, bringing the products of the interior and taking back foreign goods, including gay calicoes, beads, guns, powder, tobacco, and other things in exchange.

At the factories we see rubber, coffee, palm nuts, and palm oil, as well as ivory tusks and balls of beeswax which have just come in. Some of the tusks are so large that they must be carried on a framework of wood, resting on the shoulders of the natives.

The beeswax is taken from both wild and tame bees. The natives are excellent bee keepers. They make hives of sections of a limb of the baobab tree, scooping out the inside and fastening up the ends with boards and clay, but leaving little holes for the bees to go in and out. Such hives are fastened in the branches of low trees, and thatched with grass to keep off the rain. The honey and wax are taken out every year, a little being left so that the bees will not go away.

While we wait at Benguela we have a chance to visit the villages near by. The huts are of wicker with mud roofs of grass thatch. The doors are so low we have to stoop to go in; the floors are the ground, and about the only furniture is a low bed of sticks or palm leaves with a sleeping mat on it. Sometimes there is a pillow of matting, stuffed with wild cotton, or perhaps a wooden pillow three or four inches high. The people sleep on the floor.

There are little gardens about the huts, and in them we

see women hoeing. The women do the hard work. They dig the ground with hoes that have iron blades like a large oyster shell and wooden handles about eight inches long. They plant Indian corn, mandioca, red peppers, and other things, and harvest them when ripe.

The men are often mechanics, working in iron and wood. They make canoes, build huts, and go hunting and fishing. They are also porters, carrying goods over the country.

The natives of Angola dress like the natives in parts of the Congo valley. Near the coast the men have waist cloths which reach to their knees, being tied about the body with a strip of red cloth. The women wear but little more, and the children go naked. Both sexes have odd ways of dressing the hair; and many of the women wear heavy rings of iron, brass, or tin about their ankles or wrists. A woman will sometimes carry fourteen pounds of iron upon her naked feet. The bands are fixed on by a blacksmith; they are often so thick that the wearer has to tie rags about them to protect her skin from injury until it is hardened.

Returning to the steamer, we go along the coast northward to Loanda, one of the oldest towns of western Africa. It is the capital of the colony and has been so since 1575. It was for a long time one of the chief seats of the slave trade with Brazil and Cuba, as many as one hundred thousand slaves having been exported from here in a year.

When the slave trade stopped, Loanda lost its importance, but it has recently grown by its exports of native products, and is now said to be the finest city of western Africa. Coffee and sugar plantations have been set out in the country behind, and coffee has become a staple export. A railroad has been built several hundred miles into the interior, and upon it and the Kuanza River, which is not far south of the port, great quantities of rubber, wax, palm

oil, hides, cotton, ivory, and peanuts are brought here for shipment to Europe.

The Kuanza is the chief river of Angola, but it has many rapids and is navigable for short distances only. The head of navigation is at Dondo, some distance back from the coast. The town is a thriving trading center, and at nearly all the street corners are the shops of the traders. We see caravans of porters coming in with loads of native goods on their shoulders.

On our way back to Loanda we ride part of the way through the country in machillas, or hammocks slung to poles, which rest on the shoulders of men. Our porters go on the trot, and although they jolt us at first, we soon become so used to the motion that we drop off to sleep.

Four lines of ocean steamers call regularly at Loanda. Upon our return we find one belonging to the British Navigation Company ready to sail, and as we have now completed our tour of the African continent we shall take passage on it for Southampton.

While waiting, we call machillas and take a ride through Loanda. The town has only a few thousand Europeans, but many more natives. We visit the stores in the lower part along the bay, spend a short time in the markets, buying a few curios to take home to our friends, and then call upon the governor and other officials in the residential part of the city, which lies on the hill farther back.

The steamboat whistles as we leave the governor's house, and we hurry on board. Our baggage has already been packed away in the hold, and a little later we are steaming outward on our long voyage home. We call at the Cape Verde Islands, the Canaries, and Madeira, and then sail on northward to Southampton, from where a fast ocean liner, in six days, takes us across the Atlantic, home to New York.

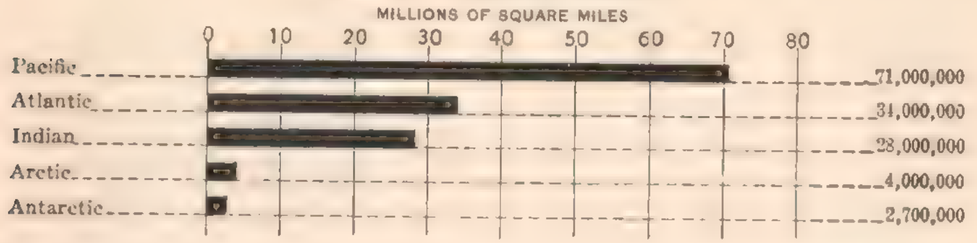
1. What great province of West Africa is controlled by the Portuguese? How did it come into their possession, and when? What are the chief exports?
2. Take a trip through the country, describing the natives.
3. What trans-continental line of railway will pass through this territory? What is the chief reason for its being built? Take a trip from Lobito Bay by this railway to Katanga; to Dar es Salaam; to Cape Town.

TABLES

Table I. Area and Population of Continents

	Sq. Miles	Population
Asia	17,143,000	895,118,000
Africa	11,514,000	136,272,000
North America	9,392,000	146,126,000
South America	6,856,000	63,850,000
Europe	3,794,000	443,972,000
Australia	3,457,000	8,758,000
Antarctic Continent	5,000,000	.....
	57,156,000	1,691,096,000

Table II. Area of Oceans



The Sea	139,700,000 square miles
The Land	57,156,000 " "
The Earth's Surface	196,856,000 " "
Length of Equator	24,900 miles

Table III. Area and Population of the Countries of Africa

	Sq. Miles	Population
Independent Countries		
Abyssinia	350,000	11,500,000
Egypt	350,000	12,751,000
Liberia	40,000	2,000,000
British Territory		
Kenya	200,000	2,376,000
Tanganyika Territory (Mandate)	365,000	4,124,000
Uganda	110,300	3,066,000
Zanzibar	1,020	197,000
Nyasaland	39,573	1,202,000
British Somaliland	68,000	300,000
Basutoland	11,716	499,000
Bechuanaland	275,000	153,000
Rhodesia		
Southern	149,000	807,000
Northern	291,000	931,000
Swaziland	6,678	134,000

TABLE III (*Continued*)

	SQ. MILES	POPULATION
British Territory (Continued)		
Union of South Africa		
Province of Cape of Good Hope	276,966	2,783,000
Natal	35,284	1,429,000
Transvaal	110,450	2,088,000
Orange Free State	50,389	629,000
Southwest Africa (Mandate)	322,400	227,000
Nigeria	336,700	18,500,000
Cameroon (British Mandate)	31,000	1,040,000
Gambia	4,134	209,000
Gold Coast	80,000	2,080,000
Togoland (British Mandate)	12,600	359,000
Colony of Sierra Leone	4,000	85,000
Protectorate of Sierra Leone	27,000	1,456,000
Anglo-Egyptian Sudan	1,014,000	5,850,000
TOTAL BRITISH TERRITORY	3,742,210	49,924,000
Belgian Territory		
Belgian Congo	909,654	9,508,000
French Territory		
Algeria	222,180	5,802,000
French Sahara	1,544,000	800,000
Tunis	50,000	2,095,000
Senegal	74,112	1,226,000
French Sudan	617,600	2,475,000
Upper Volta	154,400	2,974,000
Guinea	95,218	1,876,000
Ivory Coast	121,976	1,546,000
Dahomey	42,460	842,000
Togo (French Mandate)	21,200	673,000
Mauritania	347,400	262,000
French Equatorial Africa	982,049	2,846,000
Cameroon (French Mandate)	160,000	2,100,000
French Somali Coast	5,790	208,000
French Morocco	213,140	5,400,000
TOTAL FRENCH TERRITORY	4,651,525	31,125,000
Italian Territory		
Eritrea	45,435	407,000
Italian Somaliland	139,430	450,000
Libia	406,000	1,000,000
TOTAL ITALIAN TERRITORY	590,865	1,857,000
Portuguese Territory		
Guinea	13,940	289,000
Angola	484,800	4,119,000
Mozambique	426,712	3,120,000
TOTAL PORTUGUESE TERRITORY	925,452	7,528,000
Spanish Territory		
Rio de Oro and Adrar	109,200	495
Spanish Guinea	10,810	150,000
Fernando Po, etc.	795	16,000
Spanish Morocco	18,360	600,000
TOTAL SPANISH TERRITORY	139,165	766,495

TABLE IV. POPULATION OF AFRICAN CITIES

Addis Abbaba, Abyssinia	45,000
Algiers, Algeria	207,000
Alexandria, Egypt	445,000
Beira, Mozambique	3,420
Biskra, Algeria	11,000
Boma, Belgian Congo	5,000
Buluwayo, Rhodesia	11,000
Cairo, Egypt	791,000
Cape Town, Cape of Good Hope	207,000
Casablanca, Morocco	102,000
Constantine, Algeria	78,000
Dakar, Senegal	28,000
Dar es Salaam, Tanganyika Territory	20,000
Durban, Natal	140,000
Fez, Morocco	67,000
Freetown, Sierra Leone	44,000
Johannesburg, Transvaal	288,000
Khartum, Anglo-Egyptian Sudan	31,000
Kimberley, Cape of Good Hope	40,000
Kumassi, Ashanti	20,000
Lagos, Nigeria	60,000
Lourenço Marques, Mozambique	10,000
Marakesh, Morocco	140,000
Mombasa, Kenya	32,000
Monrovia, Liberia	6,000
Mozambique, Mozambique	363,000
Nairobi, Kenya	24,000
Oran, Algeria	141,000
Port Said, Egypt	91,000
Pretoria, Transvaal	74,000
St. Louis, Senegal	15,000
Salisbury, Rhodesia	31,000
Siut, Egypt	51,000
Suez, Egypt	31,000
Tangier, Morocco	29,000
Timbuktu, French Sahara	7,000
Tripoli, Libia	73,000
Tunis, Tunis	172,000
Windhoek, Southwest Africa	17,000
Zanzibar, Zanzibar	35,000

TABLE V. DISTANCES BETWEEN PORTS OF UNITED STATES AND AFRICA

FROM	TO NEW YORK	TO NEW ORLEANS	TO SAN FRANCISCO
Aden (Asia)			
Via Suez Canal	6,532	7,870	.....
Via Cape of Good Hope	10,985	11,408	.....
Via Suez and Panama	.....	.....	10,800
Via Singapore	.....	.....	11,500
Cape Town	6,815	7,374	.....
Via Panama	.....	.....	9,898

TABLE V (*Continued*)

FROM	TO NEW YORK	TO NEW ORLEANS	TO SAN FRANCISCO
Gibraltar	3,207	4,576	.....
Via Panama	.....	.....	7,642
Boma	5,662	6,580	.....
Port Said	5,122	6,509	.....
Via Panama	..	.....	9,562
Mombasa			
Via Aden and Suez Canal	8,160	9,498	

NOTE: In calculating time of travel, allow thirty miles an hour for distance by railroad, and fifteen miles an hour for distance by steamer.

TABLE VI. HIGH MOUNTAINS OF THE WORLD

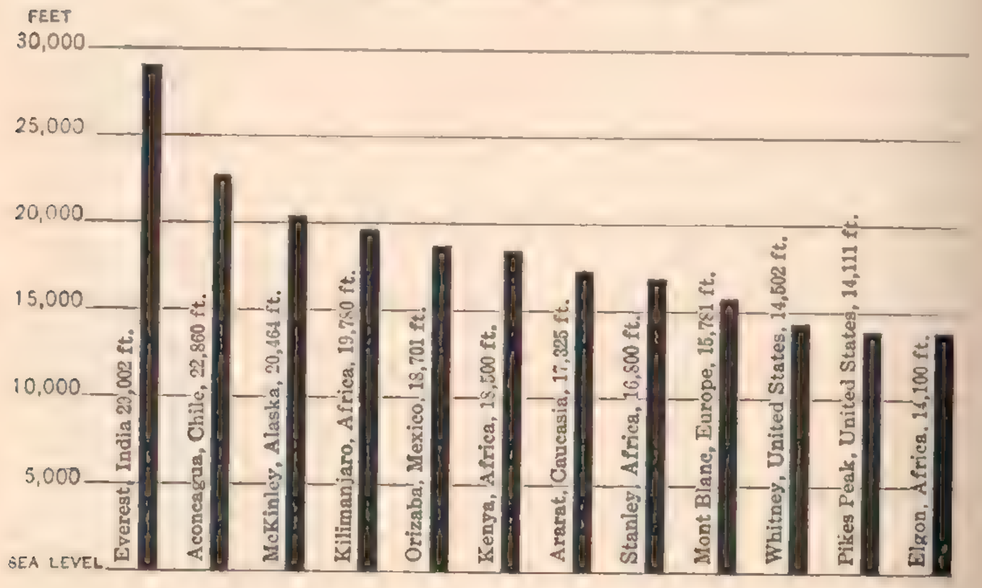


TABLE VII.

SOME AFRICAN RIVERS	MILES	SOME OTHER GREAT RIVERS	MILES
Nile	3,700	Mississippi-Missouri	4,200
Congo	2,800	Amazon	3,500
Niger	2,600	Yangtze	3,100
Zambezi	2,200	Yenisei	3,000
Limpopo	1,000	Parana-Plata	2,500
Senegal	1,000	Volga	2,300
Volta	900	St. Lawrence	2,100
Kunene	720	Mackenzie	2,100
Kuanza	700	Arkansas	2,000
Gambia	700	Yukon	1,800

TABLE VIII. PRINCIPAL COUNTRIES PRODUCING TIN

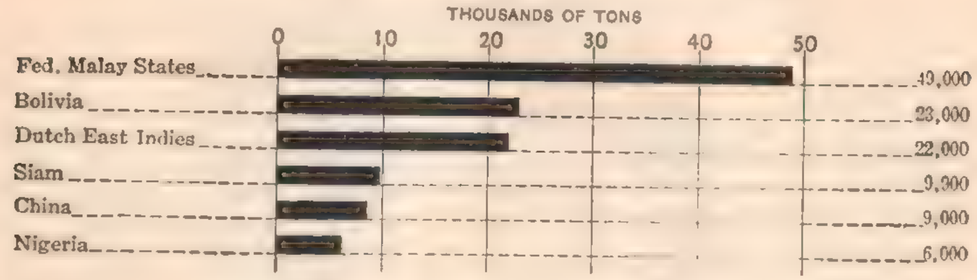


TABLE IX. PRINCIPAL COUNTRIES PRODUCING COPPER

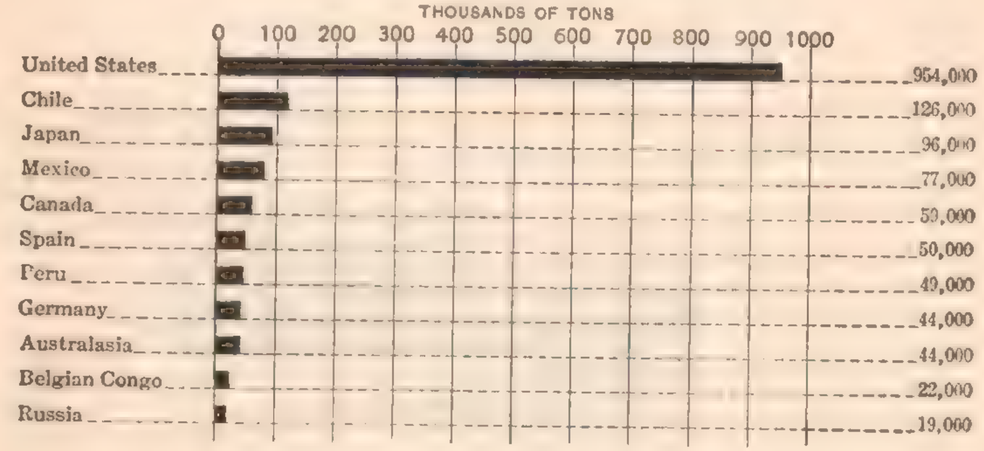


TABLE X. PRINCIPAL COUNTRIES PRODUCING COAL

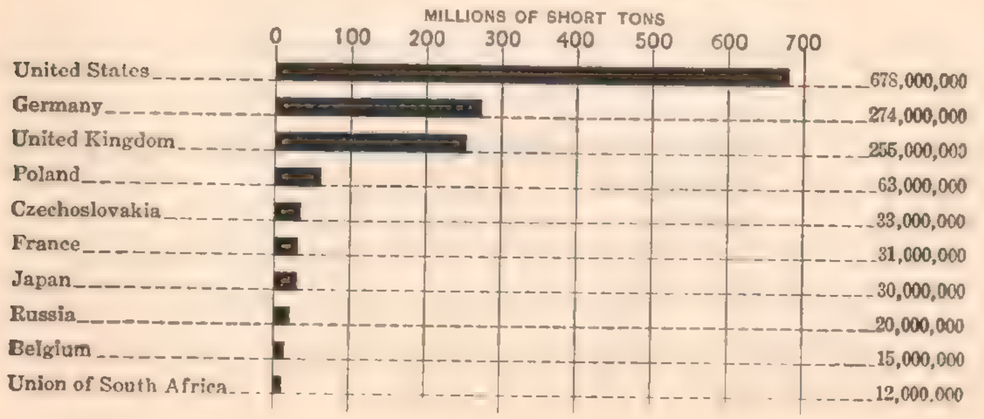


Table XI. Principal Countries Producing Gold

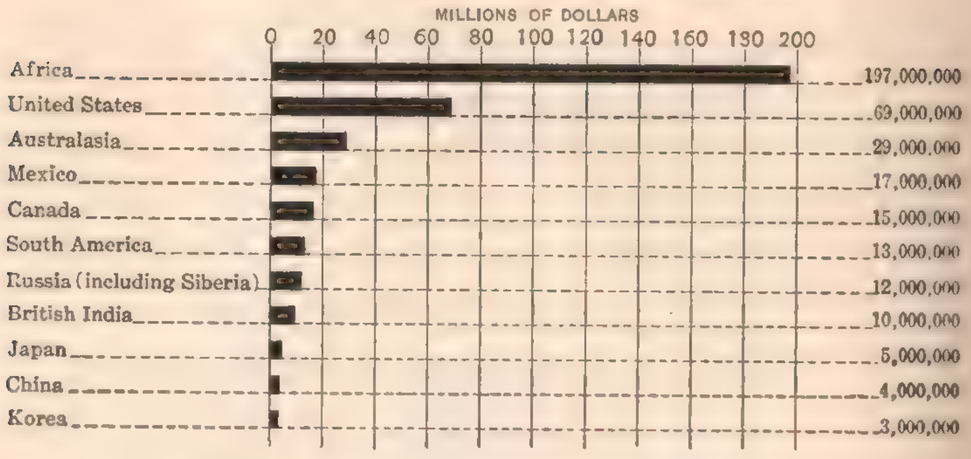


Table XII. Principal Countries Producing Diamonds
(Production, 1919)

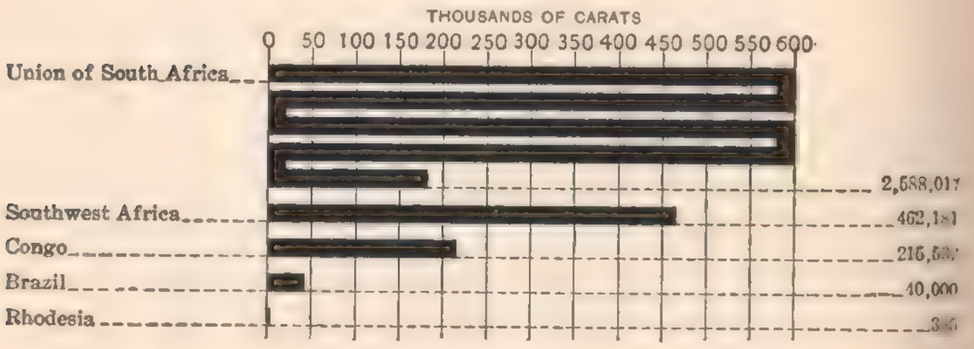


Table XIII. Principal Countries Producing Cotton

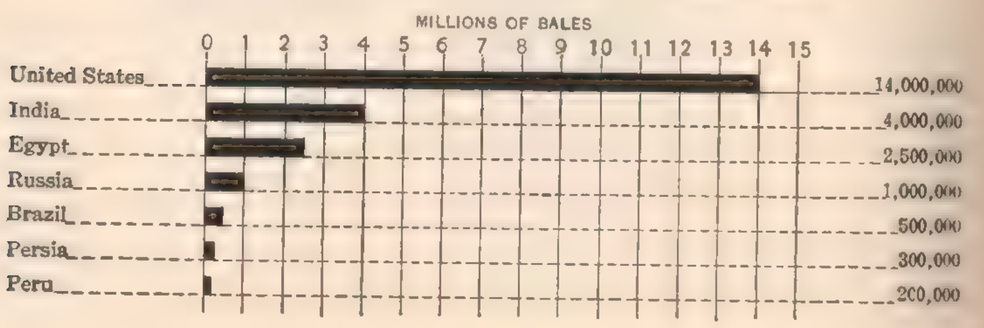
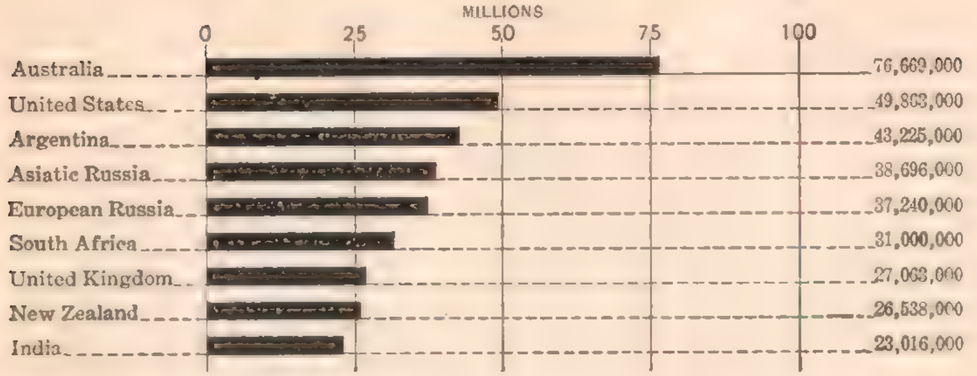


Table XIV. Principal Countries Raising Sheep



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MARKINGS: ā in lāte, â in senâte, ă in făt, â in câre, ä in färˌ å in låst; ē in mē, ê in rêturn, ĕ in mĕt, ē in tērm; ī in fīne, ĭ in tĭn; ŋ = ng; N = ng in its effect (nasal) on the preceding vowel, but is not itself sounded; ō in nōte, ô in ôbey, ŏ in nŏt, ô in fôr, o͞o in sch o͞ol, o͝o in w o͝ol; th in thine; ū in tūne, ŭ in nŭt, û in bûrn.

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